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Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz, Monthly Reports January 1984 - December 1984

M.B. Bell, H.P. Gagnon, and J.D. Moore

February 1985

Canada

NRCC No. 24190

85-49051

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OBSERVATIONS OF SOLAR FLUX AT THE ALGONQUIN RADIO OBSERVATORY ON 2800 MHz AND THE DOMINION RADIO ASTROPHYSICAL OBSERVATORY ON 2700 MHz MONTHLY REPORTS JANUARY 1984 – DECEMBER 1984

M.B. Bell, H.P. Gagnon, and J.D. Moore

ARO-14
NRCC No. 24190

FEBRUARY 1985

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ABSTRACT

Daily tabulations of the radio flux at 2800 MHz from the Algonquin Radio Observatory (ARO) and at 2700 MHz from the Dominion Radio Astrophysical Observatory (DRAO) are presented for the year 1984. This period marks the ninth year into sunspot cycle 21.

RÉSUMÉ

Présentation des tables quotidiennes du flux radio à 2800 MHz par l'Observatoire radioastronomique d'Algonquin et à 2700 MHz par l'Observatoir fédéral de radioastrophysique pour l'année 1984, période couvrant la neuvième année du cycle 21 de taches solaires.

OBSERVATIONS OF SOLAR FLUX AT THE ALGONQUIN RADIO OBSERVATORY ON 2800 MHz AND THE DOMINION RADIO ASTROPHYSICAL OBSERVATORY ON 2700 MHz

Monthly Reports, January 1984 - December 1984

INTRODUCTION

Tabulations of the daily values of radio solar flux and burst characteristics are listed on a monthly basis after visual examination of the records obtained from the Algonquin Radio Observatory (ARO) and from the Dominion Radio Astrophysical Observatory (DRAO) on 2800 MHz and 2700 MHz respectively. A description of burst types can be found in ARO Report No. 4 which includes extra terms introduced as required by the recommendations of Commission 10 of the International Astronomical Union. The ARO solar site was converted to computer operation in November 1977 and in preparing the Ottawa report, interesting large bursts recorded at ARO are now plotted by computer to a time resolution equal to that obtained on the original record which is in the order of 1 s.

A bibliography of internal reports related to the data is given in a Publication of the Astrophysics Branch (PAB), Vol. 1(2), June 1973.

Tabulated Data

Daily values of solar flux at 2800 MHz recorded at National Research Council. A collection of monthly and annual publications available in the Canada Institute for Scientific and Technical Information (formerly the National Science Library) under call number QB475,N27.

Vol. 1 1946 - June 1955, Series A.

Vol. 2 July 1955 - December 1959. Series A revised and Series B starts.

Vol. 3 January 1960 -July 1964. Series B

Vol. 4 August 1964 - December 1966. Series B until December 1965, then Series C.

Vol. 5 January 1967 - December 1969. Series C. Contains Radio and Electrical Engineering Division Unclassified Report ERB-790 with extensive descriptive text for calibration and burst descriptions.

Vol. 6 January 1970 - December 1972. Series C. Contains Astrophysics Branch Report, PAB Vol. 1, No. 2 with extensive Bibliography of NRC

Divisional Reports relating to the 2800 MHz Solar Noise Program of total flux measurements.

Vol. 7 January 1973 - December 1976. Series C. Contains Report No. ARO 4 of the Herzberg Institute of Astrophysics with a revised schematic of idealized burst profiles compatible with the IAU Instruction Manual and a select bibliography with comments to show the evolutionary appearance of the Ottawa types. Also contains PAB Vol. 1, No. 4 with E-W solar strip scans of the sun at 10-7 cm from June 1968 to December 1973.

ARO-5 August 1977. A Working Collection of Daily 2800 MHz Solar Flux Values (1946 - 1976).

ARO-6 June 1979. Historical Background for the 1970 Absolute Calibration of Solar Flux Density at 2800 MHz and Reprint of Final Report to Members of the URSI Working Party.

ARO-7 April 1980. Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz Monthly Reports, January 1977 - December 1978.

ARO-8 June 1980. East-West Solar Scans at 10-cm Wavelength Taken at the Algonquin Radio Observatory January 1974 to December 1979.

ARO-9 September 1980. Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz Monthly reports, January 1979 - December 1979.

ARO-10 June 1981. Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz Monthly Reports, January 1980 - December 1980.

ARO-11 March 1982. Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz Monthly Reports, January 1981 - December 1981.

ARO-12 March 1983. Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz Monthly Reports, January 1982 - December 1982.

ARO-13 February 1984. Observations of Solar Flux at the Algonquin Radio Observatory on 2800 MHz and the Dominion Radio Astrophysical Observatory on 2700 MHz Monthly Reports, January 1983 - December 1983.

January 1984

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NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Jan.	Series C	Series C	Series D
1	87.2	84.3	75.9
2	90.4	87.4	78.7
3	92.6	89.5	80.5
4	94.1	91.0	81.9
5	91.2	88.2	79.4
6	88.5	85.6	77.0
7	89.5	86.5	77.8
8	95.5	92.3	83.1
9	97.6	94.4	85.0
10	98.5	95.2	85.7
11	100.1	96.8	87.1
12	104.5	101.1	91.0
13	105.6	102.1	91.9
14	102.6	99.2	89.3
15	101.1	97.8	88.0
16	99.8#	96.6#	86.9#
17	98.3	95.2	85.7
18	98.1	95.0	85.5
19	96.5	93.4	84.1
20	105.6	102.2	92.0
21	106.7	103.3	93.0
22	114.0	110.5	99.4
23	116.9	113.3	102.0
24	130.4#	126.4#	113.8#
25	151.5	146.8	132.1
26	170.1#	164.8#	148.3#
27	177.6	172.3	155.1
28	174.1	168.9	152.0
29	180.0	174.6	157.1
30	166.5	161.5	145.3
31	174.4	169.3	152.4
Mean:	116.1	112.4	101.2

Corrected for burst.

January 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-APO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - APO			PENTICTON - DRAO
Jan.	14:00	17:00	20:00	19:35
1	87.8	87.2	88.8	----
2	87.2	90.4	93.7	----
3	91.0	92.6	93.8	90.7
4	94.1	94.1	95.6	93.2
5	89.4	91.2	92.1	90.4
6	87.0	88.5	89.1	88.8
7	87.3	89.5	90.2	----
8	92.7	95.5	96.1	----
9	96.1	97.6	99.2	97.5
10	96.1	98.5	100.2	97.6
11	98.2	100.1	100.1#	98.6#
12	104.9	104.5	105.9#	105.0#
13	104.2	105.6	105.3#	105.1
14	101.4	102.6	103.5	-----
15	99.0	101.1	102.3	-----
16	99.6	99.8#	100.4#	98.6#
17	95.7	98.3	98.2#	96.3#
18	96.6	98.1	97.1	96.0
19	95.7	96.5	97.6	96.4
20	----	105.6	108.5	106.5
21	106.7a	106.7	106.3#	-----
22	112.2	114.0	112.6	-----
23	113.7	116.9	119.5	117.1
24	130.5	130.4#	136.7	132.2
25	147.5	151.5	155.3#	149.8#
26	160.7	170.1#	172.2	166.8
27	174.2	177.6	178.6	174.8
28	174.1#	174.1	179.0#	-----
29	174.3	180.0	186.2	-----
30	166.9#	166.5	165.5	160.9
31	174.5#	174.4	173.5	168.4
Mean:	114.6	116.1	117.5	115.7

Corrected for burst.
a) Extrapolated

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE Jan.	KEY		CLASS	START U.T. H M	MAXIMUM U.T. H M	DURATION MINUTES	PEAK FLUX	MEAN FLUX
3	20	GRF	SimpIII GRF	17 10	17 45	50	1.4	0.7**
	1	S	Simple I	20 13.5	20 14	2	1.0	0.5*
6	240	R	Rise Only	15 18	15 20	2	1.4	0.7**
	1	S	Simple I	21 13	21 13.3	2	2.4	0.8*
7	1	S	Simple I	22 00	22 00.3	1	2.4	1.2*
	1	S	Simple I	22 09.5	22 09.9	1	2.4	1.2*
8	1	S	Simple I	16 58.5	16 59.7	3	6.8	2.3
	21	GRF	SimpIIIA GRF	20 15	20 25	45	4.2	2.1
	1	S	Simple I	20 22	20 23.2	3	3.8	1.4
9	1	S	Simple I	19 20	19 24	5	2.0	1.0
11	20	GRF	SimpIII GRF	18 30	19 00	130	2.2	1.2
	240	R	Rise Only	20 42	20 50	8	1.8	0.9*
12	20	GRF	SimpIII GRF	19 05	20 15	130	1.8	1.3
13	20	GRF	SimpIII GRF	19 50	20 30	130	4.4	2.2
14	3	S	Simple II	15 09	15 11.6	4	12.6	4.2**
	29	PBI	P.B. Increase	15 13	15 13	17	2.0	1.0**
15	1	S	Simple I	19 42	19 44	5	1.6	0.8
16	20	GRF	SimpIII GRF	14 25	14 45	125	2.0	1.0**
	20	GRF	SimpIII GRF	16 35	17 10	90	2.0	1.0**
	20	GRF	SimpIII GRF	18 10	19 35	170	2.8	1.3
17	8	S	Spike	17 37.2	17 37.5	0.5	1.4	0.7
	20	GRF	SimpIII GRF	19 15	19 30	80	1.6	0.8
19	1	S	Simple I	13 44.5	13 45	1.5	3.4	1.7**
20	21	GRF	SimpIIIA GRF	13 35	14 25	290	18.4	8.0**
	3	S	Simple II	13 59.9	14 00.2	4	19.4	6.6**
	40	F	Fluctuations	14 07.5	14 12.5	6	4.0	---**
	1	S	Simple I	14 15.5	14 17	5	9.6	4.8**
	240	R	Rise Only	18 35	19 30	55	2.8	1.2
	1	S	Simple I	21 05	10 5.3	1	2.2	1.1*
21	20	GRF	SimpIII GRF	17 10	18 10	90	2.0	1.0
	22	GRF	SimpIIIF GRF	18 09	18 14	90	1.8	1.1*
23	240	R	Rise Only	15 55	16 30	35	2.6	1.3**
24	20	GRF	SimpIII GRF	15 55	16 55	80	2.4	1.3**
	240	R	Rise Only	17 35	18 30	55	4.8	2.8
	2	S/F	Simple IF	20 21.7	20 22	1.5	9.4	3.2
25	22	GRF	SimpIIIF GRF	15 00	16 05	115	6.0	3.0**

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

January 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KFY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Jan.				H M	H M	MINUTES		
25	23	GRF	SimpIIIAF GRF	17 40	18 30	155	7.8	3.9
	4	S/F	Simple IIF	18 35.5	18 37	5	10.0	5.0
26	240A	F	Rise Only A	14 25	15 35	70	9.8	4.9**
	1	S	Simple I	15 30.8	15 31.3	2	2.6	1.3**
	20	GRF	SimpIII GRF	15 40	15 45	25	2.2	1.4**
	21	GRF	SimpIIIA GRF	16 15	16 30	165	5.4	3.8
	140	F	Fluctuations	16 18	16 21	13	4.8	---**
	22	GRF	SimpIIIF GRF	17 23	17 27	12	9.2	4.4
	1	S	Simple I	20 24	20 24.5	1	2.6	1.3
	3	S	Simple II	20 46	20 46.3	1.2	15.8	7.0
	20	GRF	SimpIII GRF	20 55	21 10	30	2.8	1.4*
27	20	GRF	SimpIII GRF	13 55	14 30	65	4.2	2.1**
	240	F	Rise Only	15 50	16 30	40	3.4	1.7**
	20	GRF	SimpIII GRF	18 40	18 45	30	3.6	1.8
	22	GRF	SimpIIIF GRF	20 35	21 40	110	5.6	2.8*
28	21	GRF	SimpIIIA GRF	13 35	14 10	200	10.6	5.3**
	20	GRF	SimpIII GRF	15 33	15 35	60	3.6	2.0**
	20	GRF	SimpIII GRF	18 00	18 30	40	2.4	1.2
	22	GRF	SimpIIIF GRF	19 05	20 10	230	12.0	5.0
29	20	GRF	SimpIII GRF	14 20	14 30	35	3.4	2.0**
	1	S	Simple I	18 04	18 05	5	2.8	1.4**
	22	GRF	SimpIIIF GRF	20 30	21 30	100	4.2	1.8*
30	20	GRF	SimpIII GRF	13 30	13 55	105	6.0	3.2**
	22	GRF	SimpIIIF GRF	16 00	16 38	90	5.2	2.4**
	1	S	Simple I	20 54	20 55	6	2.2	2.8
	260	FAL	Fall Only	21 25	21 40	15	-3.8	-1.9*
	1	S	Simple I	22 30	22 32.5	7	7.2	3.2*
31	20	GRF	SimpIII GRF	F13 20	13 50	>210	17.2	---**

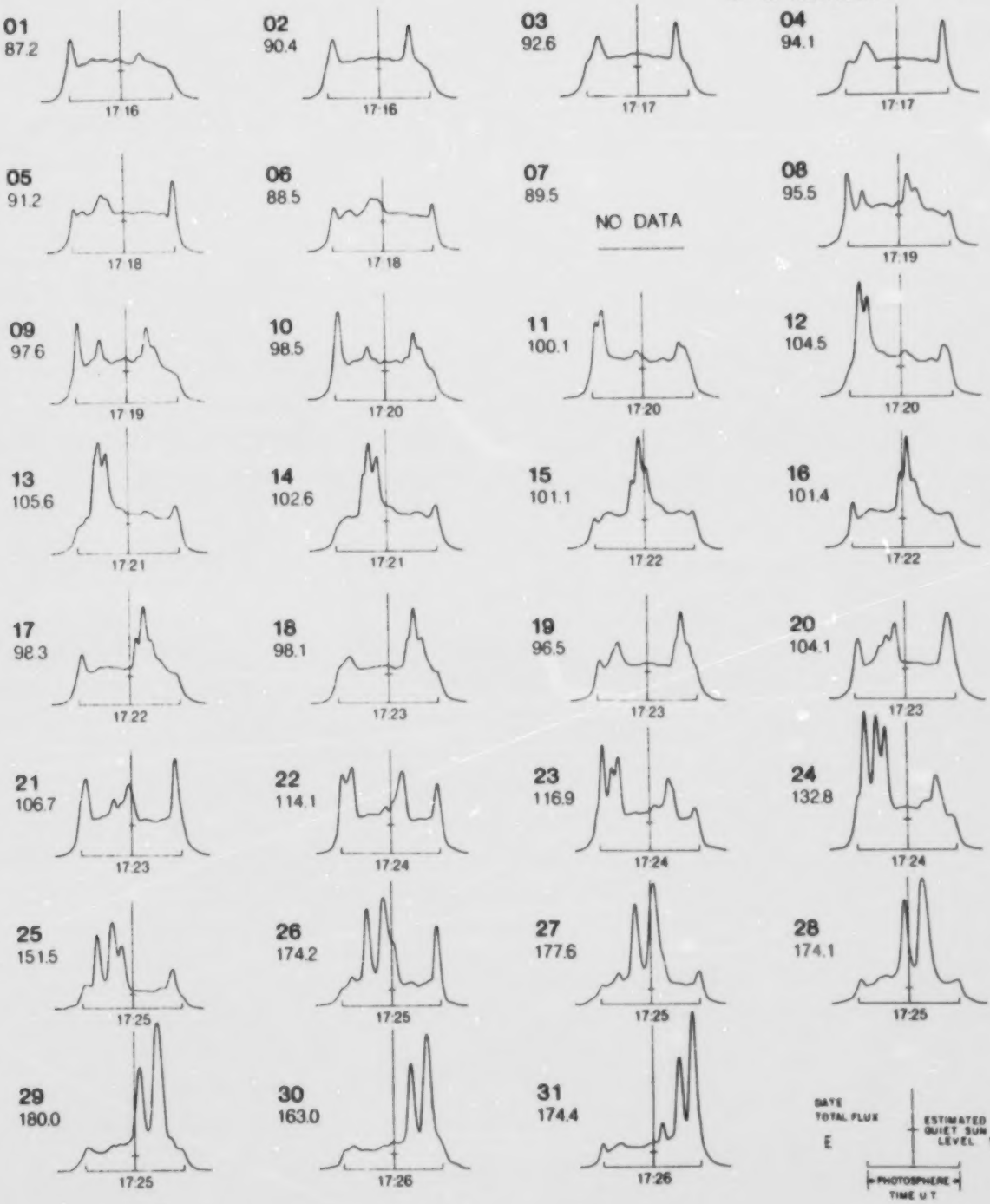
* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

EAST-WEST SOLAR SCANS

JANUARY 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



February 1984

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NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Feb.	Series C	Series C	Series D
1	159.2	154.6	139.1
2	146.2#	142.0#	127.8#
3	135.3	131.4	118.3
4	129.6	126.0	113.4
5	117.5	114.2	102.8
6	115.0	111.8	100.6
7	116.8	113.6	102.2
8	130.7	127.2	114.5
9	143.8	139.9	125.9
10	140.3#	136.7#	123.0#
11	144.9#	141.1#	127.0#
12	139.4#	135.8#	122.2#
13	131.7	128.4	115.6
14	123.4#	120.3#	108.3#
15	116.3	113.4	102.1
16	117.3#	114.5#	103.0#
17	119.4	116.5	104.8
18	125.1#	122.2#	110.0#
19	131.4#	128.4#	115.6#
20	137.6	134.6	121.1
21	147.0	143.8	129.4
22	161.6	158.0	142.2
23	169.7	166.1	149.5
24	176.6#	172.9#	155.6#
25	172.9#	169.4#	152.5#
26	167.6	164.2	147.8
27	157.3	154.3	138.9
28	151.7	148.8	133.9
29	150.8	148.1	133.3
Mean:	140.6	137.2	123.5

Corrected for burst.

February 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Feb.	14:00	17:00	20:00	19:35
1	160.2	159.2	159.9a	-----
2	146.1	146.2#	145.2	141.2
3	134.5	135.3	135.2	134.9
4	125.8	129.6	127.3	-----
5	119.0	117.5	116.6	-----
6	115.1	115.0	116.0#	115.5#
7	114.9	116.8	118.3#	116.1#
8	125.4	130.7	132.3#	130.1
9	142.9#	143.8	145.1	139.3
10	140.4#	140.3#	145.6	139.6
11	144.0	144.9#	144.4	-----
12	139.2	139.4#	138.6	-----
13	131.2	131.7	129.2	126.7
14	123.3	123.4#	123.9	120.1#
15	116.8	116.3	116.2	115.0
16	117.2	117.3#	118.0	115.6
17	118.1	119.4	119.0	115.7
18	124.7#	125.1#	126.1#	-----
19	130.5#	131.4#	132.6	-----
20	138.0	137.6	138.3#	136.1#
21	146.2#	147.0	147.3#	144.7#
22	162.0	161.6	160.3	156.5
23	167.2	169.7	172.2#	166.8#
24	172.0#	176.6#	179.4#	177.1#
25	171.5	172.9#	172.4	-----
26	169.7#	167.6	167.9#	-----
27	157.5	157.3	158.5	155.3
28	151.4#	151.7	151.9#	150.5
29	150.3#	150.8	150.4#	150.3#
Mean:	139.8	140.6	141.0	137.4

Corrected for burst.
a) Extrapolated

February 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Feb.				H M	H M	MINUTES		
1	20	GRF	SimpIII GRF	13 50	15 00	185	5.6	3.0**
	28	PRE	Precursor	19 20	19 35	15	27.0	9.0
	+47	GB	Grt Burst (-)	19 35.5	19 55	94.5	2025.0	668.0
	29	PBI	P.B. Increase	21 10	21 10	>130	50.0	---
2	21	GRF	SimpIIIA GRF	15 40	18 00	240	8.2	4.1
	1	S	Simple I	16 45.7	16 46	1.3	7.2	3.0
	4	S/F	Simple IIF	16 52.5	16 52.8	2	20.0	7.0
3	4	S/F	Simple IIF	15 16	15 17	8	18.6	4.6**
	1	S	Simple I	16 57.9	16 58	2	6.2	2.0
	3	S	Simple II	19 59	20 00.7	5	24.8	7.4
	3	S	Simple II	20 11.7	20 12	2	10.8	5.0*
	23	GRF	SimpIIIAF GRF	20 34	20 37	27	6.2	3.1
	1	S	Simple I	20 40	20 41	3	5.6	2.3
4	240	R	Rise Only	14 30	14 40	10	2.6	1.3**
	22	GRF	SimpIIIF GRF	16 55	17 30	50	1.6	0.8**
	3	S	Simple II	17 59	18 00.5	5	21.0	7.0
	29	PBI	P.B. Increase	18 04	18 04	50	2.6	1.3
	1	S	Simple I	21 16	21 17	3	2.6	1.5
5	4	S/F	Simple IIF	16 35	16 36.5	6	31.0	10.4
6	20	GRF	SimpIII GRF	19 10	21 05	170	3.2	1.6
7	240	R	Rise Only	14 27	14 43	16	1.8	0.9**
	20	GRF	SimpIII GRF	15 07	15 10	20	1.2	0.8**
	20	GRF	SimpIII GRF	16 00	16 10	55	1.6	1.0**
	20	GRF	SimpIII GRF	18 45	19 25	135	4.8	2.4
	4	S/F	Simple IIF	22 28	22 34.5	11	14.2	5.4*
8	45	C	Complex (-)	14 18.5	14 20	3	2.4	1.0**
	240	R	Rise Only	14 45	15 15	30	2.4	1.2**
	240	R	Rise Only	16 00	16 40	40	3.0	1.5**
	20	GRF	SimpIII GRF	19 50	20 15	85	5.0	2.4
	260	FAL	Fall Only	21 20	21 35	15	-2.2	-1.1
9	20	GRF	SimpIII GRF	13 00	13 50	155	6.4	3.2**
	21	GRF	SimpIIIA GRF	15 50	16 40	115	3.0	2.0
	1	S	Simple I	17 22	17 24.6	8	4.0	1.4
	32	ABS	Absorption	17 55	18 40	75	-4.4	-2.9
	21	GRF	SimpIIIA GRF	20 00	20 50	120	5.8	3.9
	1	S	Simple I	21 26	21 28	8	5.0	1.8

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

February 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KFY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	MINUTES		
10	⌜21	GRF	SimpIIIA GRF	13 35	15 00	310	12.6	6.3**
	| 8	S	Spike	14 45.5	14 45.7	0.8	7.4	---**
	| 2	S/F	Simple IF	15 40.8	15 41.5	4	3.0	1.5**
	| 2	S/F	Simple IF	15 46	15 47.5	8	3.8	1.4**
	|22	GRF	SimpIIIF GRF	17 00	17 25	65	6.4	3.2
	⌞ 1	S	Simple I	18 06	18 07	5	2.0	1.0
	⌜240A	R	Rise Only A	19 25	20 10	45	5.2	2.6
	|40	F	Fluctuations	19 35.5	19 38	4	6.0	---
	⌞ 1	S	Simple I	19 47	19 48	4	4.2	1.4
	⌜21	GRF	SimpIIIA GRF	20 20	21 13	100	4.0	2.0
	| 4	S/F	Simple IIF	20 46.5	20 50	7	32.0	9.0*
	⌞45	C	Complex (-)	21 34	21 36.9	7	14.0	6.0
	⌜21	GRF	SimpIIIA GRF	22 20	22 52	70	6.8	3.2*
	⌞40	F	Fluctuations	22 27	22 27.7	20	13.0	---*
11	⌜46F	C	Complex F (-)	14 21	14 23.8	8	32.0	12.0**
	⌞29	PBI	P.B. Increase	14 29	14 29	20	6.4	1.8**
	20	GRF	SimpIII GRF	15 00	15 10	65	2.6	1.3**
	20	GRF	SimpIII GRF	16 45	17 30	115	3.2	1.8
	32	ABS	Absorption	19 45	20 00	35	-2.0	-1.0
	⌜21	GRF	SimpIIIA GRF	20 20	22 20	>200	8.0	---
	|40	F	Fluctuations	20 26	20 27.2	11	2.2	---
	⌞40	F	Fluctuations	22 48	22 50.2	21	33.0	---*
12	⌜21	GRF	SimpIIIA GRF	14 25	15 00	185	9.6	4.8**
	⌞ 4	S/F	Simple IIF	15 09	15 09.7	6	23.6	5.6**
	1	S	Simple I	18 24.8	18 25.1	2	6.8	2.6
	20	GRF	SimpIII GRF	20 35	21 25	140	2.2	1.1
13	22	GRF	SimpIIIF GRF	16 30	16 35	15	2.8	0.9
	260	FAL	Fall Only	17 20	17 50	30	-2.4	-1.2
14	20	GRF	SimpIII GRF	15 05	16 45	300	6.2	2.9
	260	FAL	Fall Only	20 30	21 00	30	-2.8	-1.4
15	1	S	Simple I	15 57.2	15 58	1.2	1.8	0.9**
16	⌜21	GRF	SimpIIIA GRF	16 45	17 05	100	7.2	3.6
	⌞ 3	S	Simple II	16 54	16 57	11	13.4	6.0
17	20	GRF	SimpIII GRF	15 50	16 10	75	2.2	1.7**
	20	GRF	SimpIII GRF	17 35	17 50	80	2.6	1.3
	⌜47	GB	Grt Burst (-)	22 21	23 27.9	98	1920.0	384.0*

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

February 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	MINUTES		
17	└29	PBI	P.B. Increase	23 59	23 59	>30	70.0	---*
18	20	GRF	SimpIII GRF	13 15	13 30	55	3.4	2.1**
	20	GRF	SimpIII GRF	15 40	16 10	95	2.6	1.3**
	┌27	RF	Rise & Fall	17 25	Indet.	205	2.6	2.3
	|24	R	Rise	17 25	17 35	10	2.6	1.3
	|24P	R	Post Rise	17 35	-- --	185	2.6	---
	└26	FAL	Fall	20 40	20 50	10	-2.6	-1.0
19	┌21	GRF	SimpIIIA GRF	13 10	13 45	80	5.2	1.8**
	└ 2	S/F	Simple IF	13 37	13 39	7	9.6	3.2**
	┌27A	RF	Rise & Fall A	15 40	Indet.	185	2.6	2.5
	|24	R	Rise	15 40	15 45	5	2.6	1.3**
	|24P	R	Post Rise	15 45	-- --	170	2.6	---
	|22	GRF	SimpIIIF GRF	18 10	18 12	15	4.8	2.2
	└26	FAL	Fall	18 35	18 45	10	-2.6	-1.3
	20	GRF	SimpIII GRF	22 10	22 17.5	30	5.4	1.8*
20	┌21	GRF	SimpIIIA GRF	13 05	13 23	55	4.4	2.2**
	└ 1	S	Simple I	13 11	13 12	8	6.2	3.0**
	22	GRF	SimpIIIF GRF	F14 20	Indet.	>75	2.6	---**
	1	S	Simple I	16 02	16 02.5	1	2.2	1.4**
	┌21	GRF	SimpIIIA GRF	17 53	18 20	145	4.6	2.3
	| 2	S/F	Simple IF	17 54.5	17 55.2	9	3.8	1.8
	└ 1	S	Simple I	19 25	19 25.3	2	4.8	1.8
	┌21	GRF	SimpIIIA GRF	23 28	23 40	35	8.2	4.1*
	└ 1	S	Simple I	23 33	23 33.8	2	4.8	2.4*
21	┌23	GRF	SimpIIIAF GRF	13 30	13 50	150	11.8	5.6**
	| 1	S	Simple I	14 52.2	14 52.4	1.5	2.8	1.0**
	└ 1	S	Simple I	15 19	15 19.5	1	2.0	1.0**
	1	S	Simple I	16 43	16 45	8	3.0	1.5
	20	GRF	SimpIII GRF	17 30	17 38	30	3.0	1.4
	20	GRF	SimpIII GRF	18 37	18 50	130	5.0	1.8
	240	R	Rise Only	20 50	21 10	20	4.2	2.1
22	8	S	Spike	14 21.3	14 21.4	0.4	2.8	1.4**
	20	GRF	SimpIII GRF	14 25	14 45	55	3.0	1.5**
	1	S	Simple I	16 52	16 53.5	4.5	2.2	1.0**
23	┌21	GRF	SimpIIIA GRF	12 49	13 04	40	8.4	4.2**
	| 2	S/F	Simple IF	12 50	12 51	4	5.6	2.8**

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Feb.			H M	H M	MINUTES		
23	└ 1	S	Simple I	13 13	13 13.7	3	9.8	3.2**
	1	S	Simple I	14 38.2	14 38.7	1.5	3.6	1.4**
	┌ 27A	FF	Rise & Fall A	17 16	Indet.	254	3.0	2.8
	| 24	R	Rise	17 16	17 18	2	3.0	1.5
	| 24P	R	Post Rise	17 18	-- --	232	3.0	---
	|┌21	GRF	SimpIIIA GRF	17 40	18 24	65	6.0	3.0
	|└45	C	Complex (-)	18 08.2	18 13	15	18.4	8.0
	└ 26	FAL	Fall	21 10	21 30	20	-3.0	-1.5
	1	S	Simple I	21 52	21 52.8	2	4.4	---
	45	C	Complex (-)	23 23	23 25	3	2.6	1.4*
24	┌21	GRF	SimpIIIA GRF	13 00	13 40	150	16.2	8.0**
	|20	GRF	SimpIII GRF	13 27	13 32	11	10.2	4.8**
	└20	GRF	SimpIII GRF	14 53	14 54.5	12	3.4	2.7**
	┌21	GRF	SimpIIIA GRF	15 40	16 15	110	7.2	4.0
	└ 8	S	Spike	16 57	16 57.2	0.4	2.8	---
	4	S/F	Simple IIF	17 50	17 51	3	48.0	14.0
	20	GRF	SimpIII GRF	18 03	18 05	14	3.6	1.8
	20	GRF	SimpIII GRF	18 23	18 27	20	4.4	2.2
	┌ 21	GRF	SimpIIIA GRF	18 55	19 25	70	8.2	---
	|┌45	C	Complex (-)	18 57	18 59	5	30.0	15.
	└└29	PBI	P.B. Increase	19 02	19 02	13	8.6	2.8
	20	GRF	SimpIII GRF	20 55	21 00	45	2.6	2.0
	1	S	Simple I	22 28.8	22 29	2	4.4	2.2*
	1	S	Simple I	22 53	22 53.3	1	4.0	---*
	┌21	GRF	SimpIIIA GRF	23 30	23 50	40	6.4	---*
	└ 1	S	Simple I	23 36	23 40	10	8.8	4.2*
25	1	S	Simple I	00 41	00 41.5	1.5	6.8	3.4*
	20	GRF	SimpIII GRF	13 05	13 13	20	4.2	2.1**
	┌21	GRF	SimpIIIA GRF	16 40	17 40	180	14.2	6.8
	|22	GRF	SimpIIIF GRF	17 03	17 05	13	7.8	3.9*
	|20	GRF	SimpIII GRF	17 19	17 22.5	18	8.8	4.4
	└ 2	S/F	Simple IF	17 46	17 48	9	7.8	2.8
	┌21	GRF	SimpIIIA GRF	22 00	22 10	20	3.2	1.6
	└ 4	S/F	Simple IIF	22 05	22 05.3	2.5	10.6	3.6
	┌28	PRE	Precursor	22 21	23 26.3	9	4.2	---*
	+ 3	S	Simple II	22 30	22 32.7	12	27.0	15.0*

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

February 1984

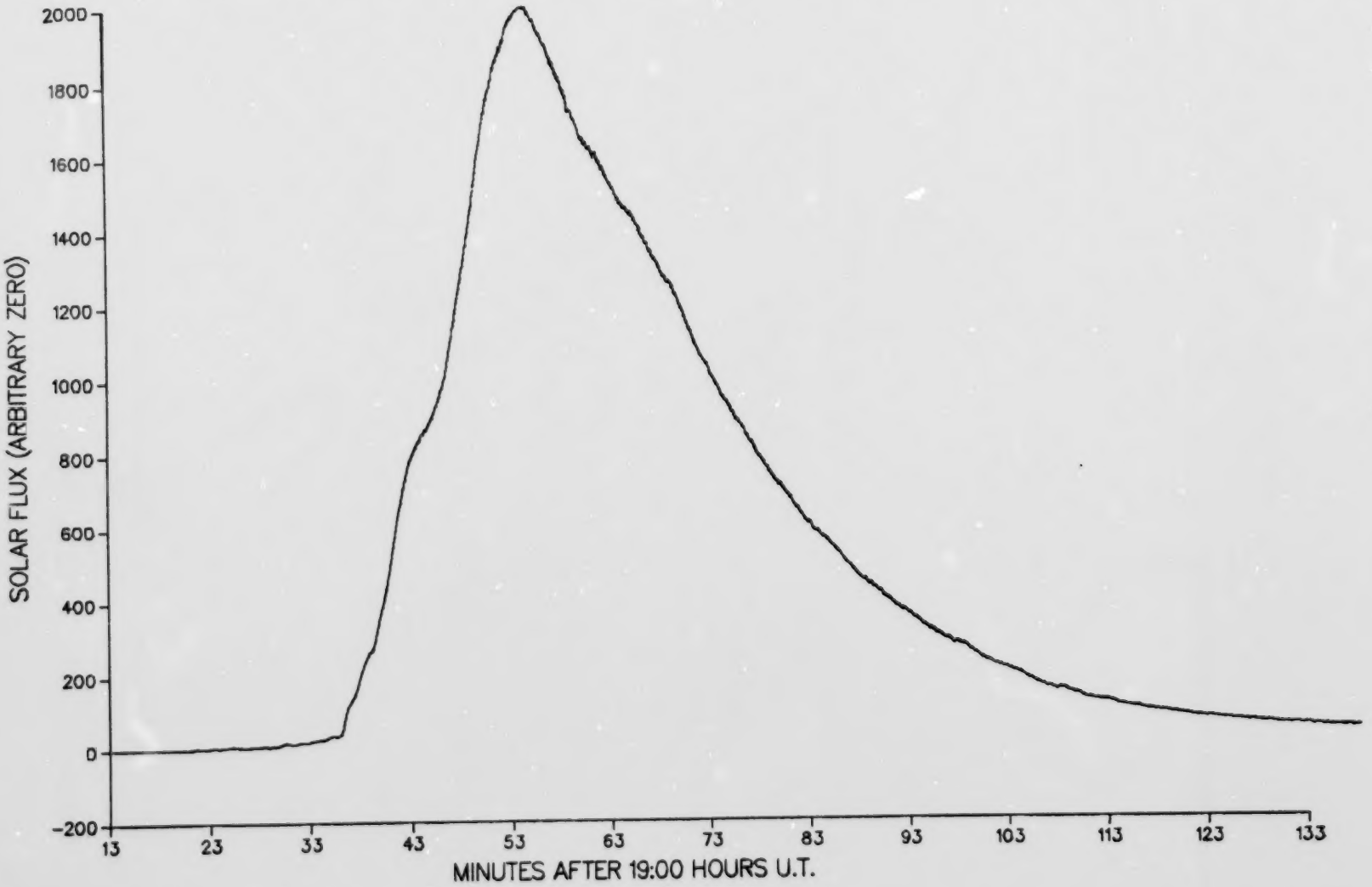
OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Feb.				H M	H M	MINUTES		
25	└29	PBI	P.B. Increase	22 42	22 42	55	9.0	5.6*
26	┌46F	C	Complex F (-)	12 33	12 51	27	138.0	56.8**
	┼30	PBI	P.B. Incr. A	13 00	13 00	190	17.4	8.7**
	| 1	S	Simple I	13 04	13 05	7	4.6	2.0**
	└20	GRF	SimpIII GRF	13 22	13 27	25	12.6	5.0**
	40	F	Fluctuations	17 23	17 23.8	1	7.0	---
	┌21	GRF	SimpIIIA GRF	18 30	18 57	230	10.4	3.6
	└ 1	S	Simple I	18 30.2	18 30.9	3.5	3.2	1.6
27	┌21	GRF	SimpIIIA GRF	15 00	15 12	110	7.4	2.0**
	└ 1	S	Simple I	15 08	15 09	2	3.4	1.6**
	┌ 4	S/F	Simple IIF	17 32	17 33	3	17.4	9.8
	└29	PBI	P.B. Increase	17 35	17 35	30	5.6	1.6
	┌ 21	GRF	SimpIIIA GRF	21 00	21 35	70	9.2	4.6
	|┌ 3	S	Simple II	21 06	21 09	5	40.0	17.4
	└└29	PBI	P.B. Increase	21 11	21 11	15	11.4	5.7
28	20	GRF	SimpIII GRF	13 05	13 50	100	4.8	2.2**
	22	GRF	SimpIIIF GRF	15 10	15 40	60	2.2	1.1**
	┌32A	ABS	Absorption A	18 10	18 25	30	-3.0	-1.5
	└ 1	S	Simple I	18 25	18 27.5	9	2.8	0.9
	20	GRF	SimpIII GRF	19 50	20 00	40	2.2	1.6
	20	GRF	SimpIII GRF	20 35	20 50	45	2.0	1.0
	┌21	GRF	SimpIIIA GRF	22 05	22 30	125	6.0	3.0*
	└20	GRF	SimpIII GRF	22 11	22 15	18	8.8	4.0*
29	┌27AF	PF	Rise&Fall AF	13 00	Inlet.	205	3.2	2.8**
	|24	R	Rise	13 00	13 20	20	3.2	1.6**
	|24P	R	Post Rise	13 20	-- --	160	3.2	---**
	| -	-	Incomplete	13 55	13 59	>5	3.4	---**
	└26	FAL	Fall	16 00	16 25	25	-3.2	-1 6**
	┌23	GRF	SimpIIIAF GRF	17 00	19 20	270	8.6	4.0
	└ 1	S	Simple I	18 00	18 00.5	6	2.8	1.3
	┌ 3	S	Simple II	21 44.5	21 44.8	1.5	57.0	14.2
	└29	PBI	P.B. Increase	21 46	21 46	28	4.2	2.4

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

FEBRUARY 01, 1984

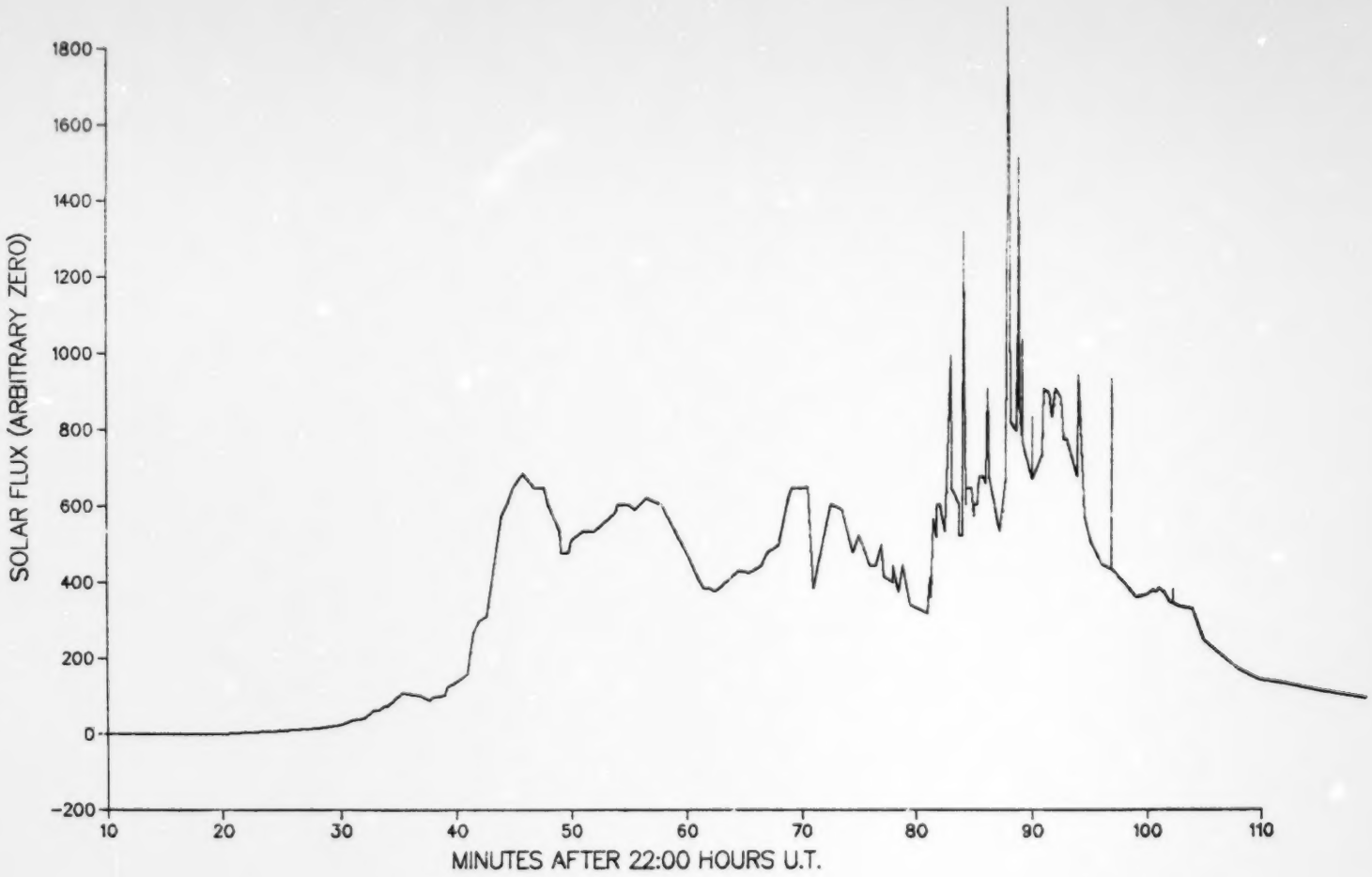
SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



15

FEBRUARY 17, 1984

SELECTED 2700 MHz SOLAR NOISE BURST
D.R.A.O. PENTICTON, B.C.
CANADA

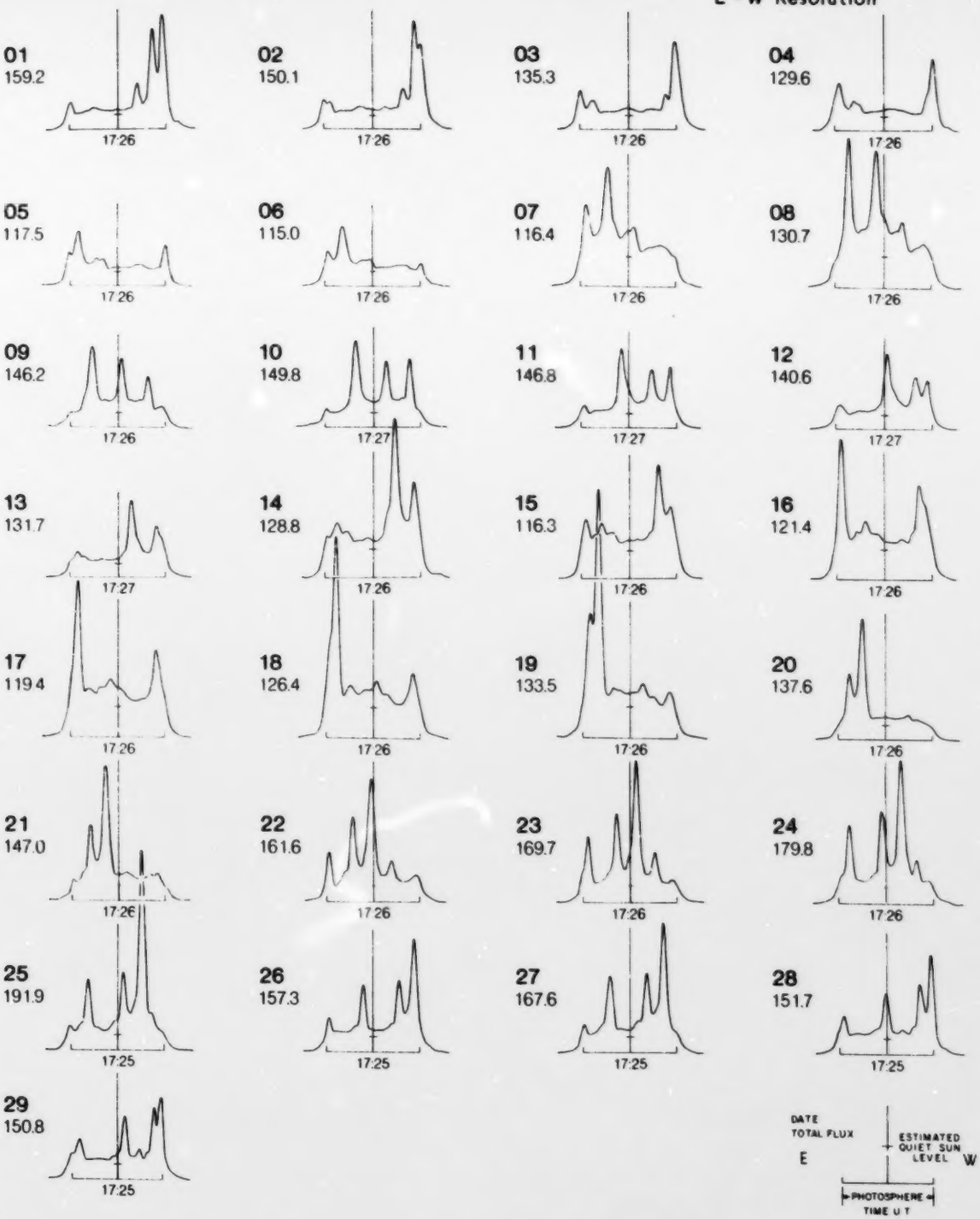


EAST-WEST SOLAR SCANS

FEBRUARY 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



March 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Mar.	Series C	Series C	Series D
1	146.2	143.6	129.2
2	140.6	138.2	124.4
3	124.6	122.5	110.3
4	116.3#	114.4#	103.0#
5	111.1	109.3	98.4
6	111.2	109.5	98.5
7	106.6	105.0	94.5
8	105.3	103.8	93.4
9	103.9	102.4	92.2
10	100.1	98.8	88.9
11	99.9	98.6	88.7
12	103.5#	102.3#	92.1#
13	116.1	114.7	103.2
14	122.4	121.1	109.0
15	135.9	134.4	121.0
16	125.3	124.0	111.6
17	130.4	129.1	116.2
18	126.9#	125.8#	113.2#
19	127.5	126.5	113.8
20	127.3	126.3	113.7
21	123.3	122.4	110.2
22	123.6	122.7	110.4
23	115.8	115.1	103.6
24	113.7	113.0	101.7
25	112.2	111.6	100.4
26	120.7	120.2	108.2
27	129.6#	129.1#	116.2#
28	136.3	135.9	122.3
29	138.5#	138.1#	124.3#
30	144.1	143.8	129.4
31	144.0	143.7	129.3
Mean:	122.0	120.8	108.8

Corrected for burst.

March 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Mar.	14:00	17:00	20:00	19:35
1	143.7#	146.2	147.4	146.8
2	140.8	140.6	137.8#	135.1
3	125.9	124.6	124.3	-----
4	116.9#	116.3#	114.9	-----
5	111.6	111.1	111.2	110.3
6	110.6	111.2	109.7	109.3
7	106.9	106.6	107.4	106.5
8	105.0	105.3	104.5	104.4
9	101.1	103.9	104.2	103.0
10	99.9	100.1	100.6	-----
11	99.1	99.9	100.3	-----
12	101.5	103.5#	104.8	102.8#
13	114.2	116.1	115.7	115.7
14	119.5	122.4	127.0#	-----
15	135.1	135.9	132.6	130.4#
16	123.8	125.3	126.5	132.9
17	127.1	130.4	130.4	-----
18	126.7#	126.9#	126.7	-----
19	125.9	127.5	128.0#	127.6#
20	127.0	127.3	126.1	124.3#
21	122.2	123.3	127.1	126.5
22	124.6	123.6	123.1	123.4
23	116.4	115.8	115.4#	115.4#
24	113.7	113.7	113.4	-----
25	110.9	112.2	112.5	-----
26	117.7	120.7	121.7	122.0
27	128.6	129.6#	132.1	129.3
28	135.5	136.3	136.9#	133.4#
29	138.2#	138.5#	138.6#	137.9
30	143.8	144.1	-----	141.0#
31	142.0	144.0	141.2	-----
Mean:	121.2	122.0	121.4	122.8

Corrected for burst.

March 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Mar.			H M	H M	MINUTES		
1	20 GRF	SimpIII GRF	13 30	13 50	60	2.2	---**
	27A RF	Rise & Fall A	15 50	Indet.	320	3.2	2.8
	24 R	Rise	15 50	16 45	55	3.2	1.6**
	24P R	Post Rise	16 45	-- --	235	3.2	---
	20 GRF	SimpIII GRF	17 05	17 35	100	2.8	1.8
	20 GRF	SimpIII GRF	18 50	19 05	40	2.0	1.0
	26 FAL	Fall	20 40	21 10	30	-3.2	-1.6
	24O R	Rise Only	21 40	21 55	15	2.6	1.3*
2	20 GRF	SimpIII GRF	12 45	13 00	40	3.2	1.8**
	26O FAL	Fall Only	17 05	17 55	50	-3.2	-1.6
	21 GRF	SimpIIIA GRF	19 35	19 45	55	3.0	1.5
	1 S	Simple I	19 40.5	19 42	2.5	2.8	1.4**
	20 GRF	SimpIII GRF	21 05	22 00	160	8.8	4.0
3	- -	Incomplete	F14 18	Indet.	>100	6.4	---**
4	20 GRF	SimpIII GRF	13 20	14 40	165	2.8	2.0**
	20 GRF	SimpIII GRF	16 25	16 45	95	2.4	1.2
6	3 S	Simple II	18 10	18 10.4	1.5	28.2	8.0
	30 PBI	P.B. Incr. A	18 11.5	18 11.5	30	2.0	1.0
	1 S	Simple I	18 15.5	18 16	1.5	1.4	0.7
	20 GRF	SimpIII GRF	21 40	21 55	60	2.4	1.2
9	20 GRF	SimpIII GRF	20 05	20 25	35	1.4	0.7
12	24O R	Rise Only	13 50	14 40	50	2.4	1.2**
	32 ABS	Absorption	16 50	17 05	30	-2.4	-1.2
	21 GRF	SimpIIIA GRF	17 50	18 55	120	4.4	2.2
	1 S	Simple I	17 59	18 00	2	3.4	2.0
	29 PBI	P.B. Increase	18 01	18 01	25	1.8	0.9
	20 GRF	SimpIII GRF	19 55	20 20	45	2.0	1.0
	24O R	Rise Only	21 10	21 45	35	4.0	1.8
13	1 S	Simple I	15 47	15 48.5	4	1.4	0.5
	22 GRF	SimpIIIF GRF	20 25	21 22	115	6.2	2.8
	22 GRF	SimpIIIF GRF	22 45	22 52	30	4.2	2.1*
14	1 S	Simple I	15 04.3	15 05	2.5	2.4	1.0**
	1 S	Simple I	15 17.6	15 18	1	2.0	1.0**
	24OA R	Rise Only A	19 00	23 40	280	10.2	---
	21 GRF	SimpIIIA GRF	19 00	20 30	275	19.0	10.4
	22 GRF	SimpIIIF GRF	19 04	19 07.5	15	8.0	3.0

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Mar.			H M	H M	MINUTES		
14	22 GRF	SimpIIIF GRF	19 26	19 29	15	9.0	3.0
	4 S/F	Simple IIF	19 42.7	19 44.5	22	28.6	11.2
	3 S	Simple II	20 11	20 22	42	98.0	30.0
	8 S	Spike	21 00.1	21 00.2	0.3	4.4	2.2
	32 ABS	Absorption	21 01	21 20	50	-9.4	-6.9
15	27AF IF	Rise&Fall AF	12 20	Indet.	390	4.6	4.0**
	24 R	Rise	12 20	12 50	30	4.6	2.0**
	24P R	Post Rise	12 50	-- --	295	4.6	---
	21 GRF	SimpIIIA GRF	13 20	13 35	55	3.0	1.5**
	1 S	Simple I	13 22.8	13 23.1	2	2.4	1.2**
	20 GRF	SimpIII GRF	15 27	15 30	13	2.0	0.8
	20 GRF	SimpIII GRF	17 18	17 22	20	6.0	2.8
	26 FAI	Fall	17 45	18 50	65	-4.6	-2.3
	21 GRF	SimpIIIA GRF	19 10	19 45	115	4.8	2.4
	1 S	Simple I	19 44.5	19 44.9	2	2.4	1.2
	21 GRF	SimpIIIA GRF	21 35	21 55	155	6.0	---
	1 S	Simple I	22 14.5	22 15.2	3	7.8	3.9
	29 PBI	P.B. Increase	22 17.5	22 17.5	7	2.2	1.1
	21 GRF	SimpIIIA GRF	22 40	23 00	80	9.8	3.5*
	1 S	Simple I	22 42	22 45	6	4.2	2.1*
	8 S	Spike	22 52.9	22 53	0.8	2.0	1.2*
	3 S	Simple II	22 56.2	22 57.5	3.8	26.0	8.6*
16	21 GRF	SimpIIIA GRF	12 10	12 25	45	12.0	6.0**
	4 S/F	Simple IIF	12 22	12 22.9	2	16.8	7.0**
	240 R	Rise Only	13 15	13 25	10	4.2	1.8**
	4 S/F	Simple IIF	21 24.7	21 26	2.3	39.0	14.6
	30 PBI	P.B. Incr. A	21 27	21 27	13	4.2	1.4
	40 F	Fluctuations	21 27	21 27.6	1.5	8.4	---
17	21 GRF	SimpIIIA GRF	18 35	19 10	85	3.0	2.0
	1 S	Simple I	19 04.6	19 04.8	1	6.8	3.2
	20 GRF	SimpIII GRF	20 00	20 07	60	3.2	---
	1 S	Simple I	23 54.5	23 55.3	2	4.4	2.2*
18	21 GRF	SimpIIIA GRF	12 00	13 20	210	5.8	2.9**
	1 S	Simple I	13 14	13 16	6	3.8	1.9**
	20 GRF	SimpIII GRF	16 00	17 20	125	2.8	1.6
	1 S	Simple I	18 12	18 12.6	1.2	7.8	2.8

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

March 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Mar.			H M	H M	MINUTES		
18	240A	R	Rise Only A	21 35	21 55	20	5.8	---
	4	S/F	Simple IIF	21 42	21 46.5	12	21.0	9.5
	22	GRF	SimpIIIF GRF	22 12.5	22 17	12	3.6	1.2
19	22	GRF	SimpIIIF GRF	14 22	14 28	55	3.0	1.5**
	20	GRF	SimpIII GRF	19 10	19 35	120	8.4	4.2
20	1	S	Simple I	12 27	12 28	6.5	2.2	1.0**
	21	GRF	SimpIIIA GRF	15 10	15 35	115	3.0	1.2
	1	S	Simple I	15 17.5	15 18	5	2.2	1.0
	1	S	Simple I	16 41	16 42	2	1.6	0.8
	20	GRF	SimpIII GRF	18 05	19 35	140	4.0	1.8*
	-	-	Null	18 05	19 35	140	---	---**
21	20	GRF	SimpIII GRF	13 05	13 10	50	2.4	1.4**
	21	GRF	SimpIIIA GRF	17 25	17 35	85	4.4	3.0
	4	S/F	Simple IIF	17 27	17 29.8	6	13.8	5.5
	1	S	Simple I	18 41	18 41.8	3	6.8	3.0
	21	GRF	SimpIIIA GRF	21 55	23 00	195	7.0	3.5
	4	S/F	Simple IIF	22 25	22 26.2	7	17.8	4.5
22	27A	RF	Rise & Fall A	13 40	Indet.	195	2.4	2.0
	24	R	Rise	13 40	14 20	40	2.4	1.5**
	24P	R	Post Rise	14 20	-- --	135	2.4	---
	21	GRF	SimpIIIA GRF	16 05	16 15	25	3.0	1.5
	2	S/F	Simple IF	16 09	16 11.3	7	5.6	2.4
	26	FAL	Fall	16 35	16 55	20	-2.4	-1.2
	20	GRF	SimpIII GRF	22 50	23 00	70	2.2	1.1*
23	20	GRF	SimpIII GRF	18 00	19 35	175	2.8	1.4
26	240	R	Rise Only	16 00	17 10	70	2.4	1.2**
27	20	GRF	SimpIII GRF	15 30	17 20	230	6.6	3.3
	20	GRF	SimpIII GRF	20 05	20 20	45	3.0	1.5
	240	R	Rise Only	21 05	21 30	25	2.0	1.0
	21	GRF	SimpIIIA GRF	21 40	21 55	35	2.0	1.0
	2	S/F	Simple IF	21 46	21 51	9	5.0	1.8
28	20	GRF	SimpIII GRF	12 10	12 25	75	2.8	1.8**
	20	GRF	SimpIII GRF	18 20	19 40	115	2.8	2.1
	20	GRF	SimpIII GRF	20 35	21 00	50	2.2	1.4
29	3	S	Simple II	00 58	01 00.2	6	78.0	27.8*
	29	PBI	P.B. Increase	01 04	01 04	>20	6.0	---*

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Mar.			H M	H M	MINUTES		
29	21	GRF	SimpIIIA GRF	13 10	13 20	65	2.2	---**
	2	S/F	Simple IF	14 00.7	14 00.9	2	3.2	1.6**
	23	GRF	SimpIIIAF GRF	14 20	14 43	180	5.6	2.2
	4	S/F	Simple IIF	16 20	16 21.4	2	19.8	6.8
	4	S/F	Simple IIF	17 51.5	17 53.2	4.5	82.0	27.0
	29	PBI	P.B. Increase	17 06	17 06	13	4.2	1.2
	20	GRF	SimpIII GRF	19 50	19 57	75	2.6	1.6
	240	R	Rise Only	22 20	23 05	45	3.8	1.9*
30	20	GRF	SimpIII GRF	19 10	19 20	40	2.4	1.2*
	240A	R	Rise Only A	22 43	22 45.1	2.1	2.4	1.2*
	4	S/F	Simple IIF	22 44	22 44.2	1	12.2	5.8*
31	1	S	Simple I	13 42	13 43	1.3	6.8	---**
	1	S	Simple I	17 32	17 33.3	3.5	2.8	1.0
	3	S	Simple II	22 02.6	22 03	1.5	34.0	8.6
	21	GRF	SimpIIIA GRF	22 20	22 40	55	3.6	1.8*
	1	S	Simple I	22 35.5	22 36	1.5	1.6	0.8*

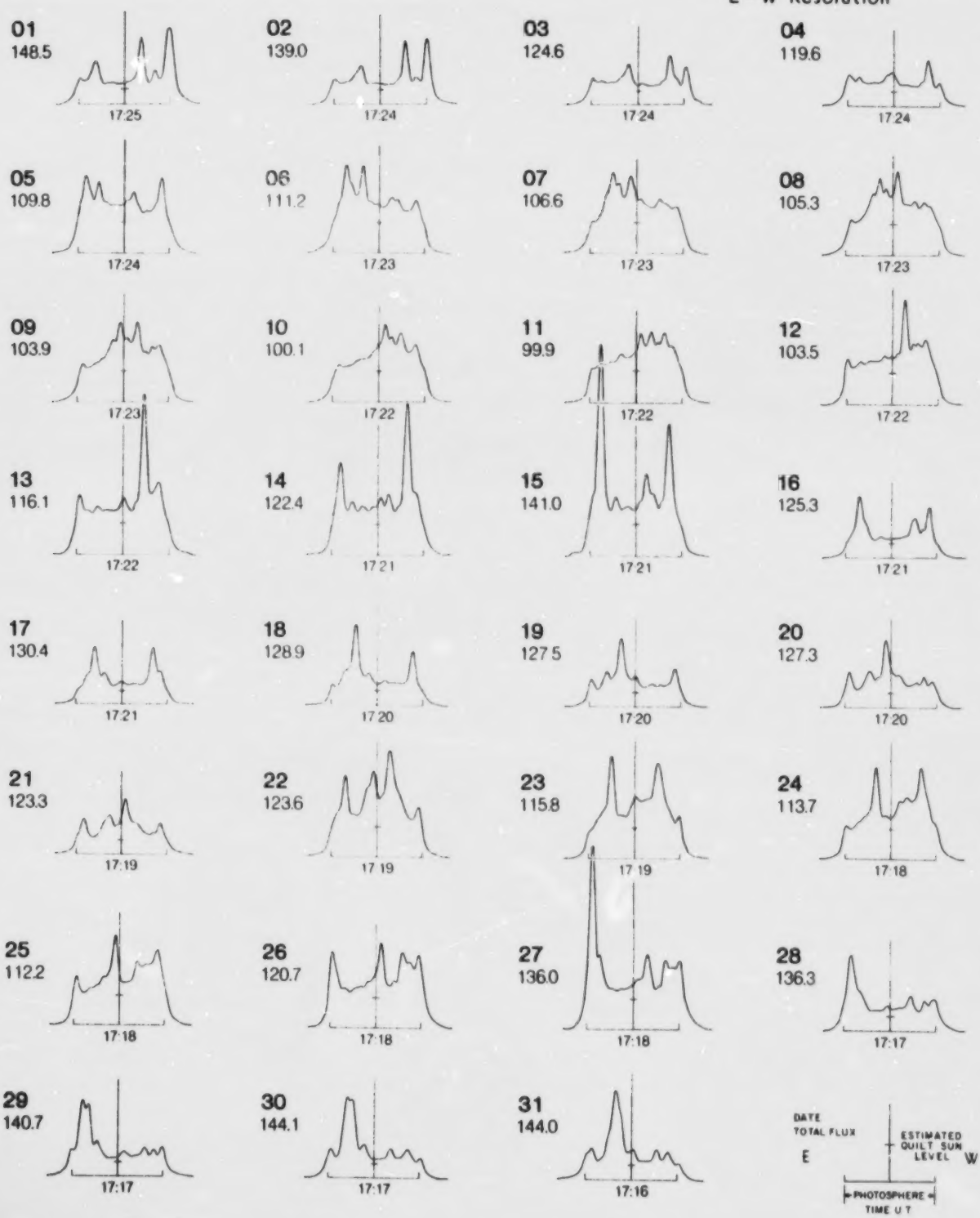
* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

EAST-WEST SOLAR SCANS

MARCH 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



April 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Apr.	Series C	Series C	Series D
1	135.8	135.7	122.1
2	134.7#	134.6#	121.1#
3	128.8#	128.8#	115.9#
4	129.4	129.5	116.5
5	118.6	118.7	106.8
6	111.9#	112.1#	100.9#
7	107.6	107.8	97.0
8	100.4a	100.7a	90.6a
9	94.6	94.9	85.4
10	93.5	93.9	84.5
11	96.8	97.3	87.6
12	106.7	107.2	96.5
13	113.0	113.7	102.3
14	118.1	118.8	106.9
15	118.9	119.7	107.7
16	116.4	117.2	105.5
17	121.9#	122.9#	110.6#
18	118.8	119.9	107.9
19	111.5#	112.5#	101.3#
20	122.9#	124.1#	111.7#
21	126.4	127.7	114.9
22	129.4	130.8	117.7
23	135.1#	136.6#	122.9#
24	141.2	142.9	128.6
25	150.6	152.4	137.2
26	171.8	174.0	156.6
27	181.2#	183.7#	165.3#
28	180.1#	182.6#	164.3#
29	175.6#	178.2#	160.4#
30	168.3	170.8	153.7
Mean:	128.7	129.7	116.7

Corrected for burst.
a) Interpolated

April 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Apr.	14:00	17:00	20:00	19:35
1	136.2	135.8	135.4	-----
2	135.7	134.7#	134.9	133.9
3	129.6	128.8#	128.2	125.8
4	126.8	129.4	126.6	126.7
5	118.9#	118.6	117.3	119.6
6	112.4	111.9#	111.6	110.2
7	106.5	107.6	104.9	-----
8	100.4	100.4a	99.1	-----
9	94.5	94.6	94.3	92.6
10	93.3	93.5	94.4	91.5
11	94.8	96.8	96.9#	95.5#
12	106.1	106.7	105.7	103.9
13	112.1	113.0	112.4	110.0
14	116.6	118.1	118.2	-----
15	118.5#	118.9	118.4	-----
16	116.5#	116.4	118.7	115.2
17	121.7	121.9#	120.7	118.6
18	115.1#	118.8	118.8	118.8
19	111.3#	111.5#	110.6	109.9
20	123.4#	122.9#	123.1#	-----
21	128.5	126.4	126.6	-----
22	129.3	129.4	129.5#	-----
23	132.1#	135.1#	135.2#	-----
24	141.6#	141.2	146.8	141.8
25	153.0	150.6	159.4	156.6
26	170.1#	171.8	174.7	169.2
27	178.4#	181.2#	183.4#	177.4#
28	183.7	180.1#	181.7	-----
29	177.1#	175.6#	173.7#	-----
30	168.4#	168.3	167.4	164.4
Mean:	128.4	128.7	129.0	125.3

Corrected for burst.
a) Interpolated

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	MINUTES		
1	21 GRF	SimpIIIA GRF	21 35	22 20	145	7.0	3.5
	1 S	Simple I	21 38	21 39.5	3	3.6	1.2
	3 S	Simple II	21 57	22 02.5	15	46.0	11.4
2	1 S	Simple I	00 32.2	00 32.5	1.2	4.2	1.4*
	20 GRF	SimpIII GRF	15 30	17 10	170	7.0	3.5
3	3 S	Simple II	01 08	01 08.1	1.5	19.6	6.6*
	21 GRF	SimpIIIA GRF	12 05	12 30	55	3.6	1.8**
	1 S	Simple I	12 25.8	12 27	2.2	3.4	1.7**
	21 GRF	SimpIIIA GRF	15 50	16 35	90	4.6	2.3
	1 S	Simple I	16 06	16 06.8	1.5	2.8	1.4
	1 S	Simple I	16 08.3	16 09.8	10	5.0	2.0
	20 GRF	SimpIII GRF	18 37	18 40	40	2.0	1.5
	22 GRF	SimpIIIF GRF	20 50	23 55	280	5.4	3.0
4	20 GRF	SimpIII GRF	11 55	12 30	40	2.6	1.3**
	22 GRF	SimpIIIF GRF	12 58	13 15	30	3.6	1.2**
	27A RF	Rise & Fall A	14 40	ND ET.	210	2.6	2.3
	24 R	Rise	14 40	15 10	30	2.6	1.4**
	24P R	Post Rise	15 10	-- --	165	2.6	---
	22 GRF	SimpIIIF GRF	15 52	15 55	22	2.6	1.2
	22 GRF	SimpIIIF GRF	17 10	17 15	15	3.4	1.7
	1 S	Simple I	17 42	17 45	8	2.2	1.1
	26 FAL	Fall	17 55	18 10	15	-2.6	-1.3
	21 GRF	SimpIIIA GRF	18 15	18 35	70	6.6	3.3
	3 S	Simple II	18 23	18 26	11	21.0	8.4
	45 C	Complex (-)	18 37.8	18 39.8	3.5	8.6	4.0
	1 S	Simple I	18 42	18 42.5	1	2.6	1.3
	20 GRF	SimpIII GRF	20 10	20 30	40	2.6	1.3
	20 GRF	SimpIII GRF	21 20	22 55	160	5.6	2.8
5	21 GRF	SimpIIIA GRF	13 00	13 38	80	30.0	8.8**
	45 C	Complex (-)	13 29.5	13 30.2	7	10.4	3.5**
	8 S	Spike	23 18	23 18	0.5	9.8	---*
6	20 GRF	SimpIII GRF	13 18	13 25	30	2.0	1.0**
	20 GRF	SimpIII GRF	16 40	17 15	125	3.0	2.0
	46F C	Complex F (-)	21 06	21 11	15	4.8	1.9
	240A R	Rise Only A	21 40	22 10	30	4.8	1.4
	1 S	Simple I	21 58	22 02	8	2.4	1.4

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

April 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY		CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.				H M	H M	MINUTES		
6	1	S	Simple I	23 43	23 44	2	1.8	0.7*
11	1	S	Simple I	00 30	00 31	7	7.0	2.0*
	20	GRF	SimpIII GRF	15 05	15 30	80	2.2	1.1
	20	GRF	SimpIII GRF	18 35	19 50	125	2.0	1.0
12	1	S	Simple I	17 12.5	17 12.8	1.5	7.2	2.4
	20	GRF	SimpIII GRF	18 53	18 58	35	2.0	0.8
13	20	GRF	SimpIII GRF	20 05	20 12	35	2.2	0.8
	20	GRF	SimpIII GRF	21 50	22 50	210	5.4	2.7
15	20	GRF	SimpIII GRF	12 35	13 15	130	5.0	2.8**
	20	GRF	SimpIII GRF	15 50	16 20	60	2.2	1.1
	240	R	Rise Only	19 55	20 20	25	2.0	1.0
	240	R	Rise Only	22 50	23 30	40	2.0	1.0*
16	20	GRF	SimpIII GRF	13 15	14 25	115	2.4	1.4**
	20	GRF	SimpIII GRF	15 50	16 30	75	2.4	1.4
	21	GRF	SimpIIIA GRF	22 00	00 30	>210	4.2	---*
	3	S	Simple II	23 02.4	23 03	4	20.0	5.0*
17	21	GRF	SimpIIIA GRF	14 40	14 48	23	2.8	1.0
	1	S	Simple I	14 45	14 46.3	2.5	4.2	2.0
	20	GRF	SimpIII GRF	16 20	16 30	75	5.0	2.5
	1	S	Simple I	21 46	21 46.4	1	3.4	1.2
18	20	GRF	SimpIII GRF	11 20	11 25	40	2.4	1.8**
	3	S	Simple II	12 15	12 18.7	6	38.0	14.2**
	29	PBI	P.B. Increase	12 21	12 21	140	9.4	5.0**
	21	GRF	SimpIIIA GRF	14 45	15 10	60	2.0	1.0
	1	S	Simple I	14 50	14 53	10	2.2	1.0
	240A	R	Rise Only A	15 48	16 10	22	2.4	---
	20	GRF	SimpIII GRF	15 48	15 52	20	6.2	2.1
	20	GRF	SimpIII GRF	17 00	18 00	100	3.0	1.5
	20	GRF	SimpIII GRF	20 10	20 30	40	2.0	1.0
	20	GRF	SimpIII GRF	21 30	Indet.	170	2.2	1.6
19	20	GRF	SimpIII GRF	11 30	12 50	115	3.2	1.6**
	27	RF	Rise & Fall	13 48	Indet.	102	1.8	1.5**
	24	R	Rise	13 48	14 00	12	1.8	0.9**
	24P	R	Post Rise	14 00	-- --	70	1.8	---**
	26	FAL	Fall	15 10	15 30	20	-1.8	-0.9
	27	RF	Rise & Fall	15 45	Indet.	195	2.2	1.8

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KFY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.				H M	H M	MINUTES		
19	|24	R	Rise	15 45	16 20	35	2.2	1.1
	|24P	R	Post Rise	16 20	-- --	120	2.2	---
	└26	FAL	Fall	18 20	19 00	40	-2.2	-1.1
	20	GRF	SimpIII GRF	21 10	Indet.	50	1.8	---
	240	R	Rise Only	22 20	23 00	40	2.2	1.1*
20	240	R	Rise Only	11 40	12 00	20	2.6	1.3**
	240	R	Rise Only	13 10	13 15	5	2.6	1.3**
	┌ 21	GRF	SimpIIIA GRF	13 45	14 50	275	5.8	2.7
	|┌21	GRF	SimpIIIA GRF	16 20	16 31	30	4.4	---
	└└ 4	S/F	Simple IIF	16 31	16 32	5	12.4	6.7
	┌27A	RF	Rise & Fall A	19 00	Indet.	185	2.2	1.8
	|24	R	Rise	19 00	19 45	45	2.2	1.4
	| 2	S/F	Simple IF	19 38	19 39.2	5.5	6.2	2.1
	|24P	R	Post Rise	19 45	-- --	115	2.2	---
	| 2	S/F	Simple IF	21 34	21 35.7	5	6.0	2.0
	└26	FAL	Fall	21 40	22 05	25	-2.2	-0.6
	240	R	Rise Only	22 25	23 10	45	6.4	3.4*
21	20	GRF	SimpIII GRF	00 30	01 00	60	2.2	1.1*
	┌21	GRF	SimpIIIA GRF	11 55	11 58	65	2.6	1.4**
	└ 1	S	Simple I	12 02.5	12 03.3	2	1.8	0.9**
	240	R	Rise Only	13 05	13 25	20	2.6	1.3**
	┌ 4	S/F	Simple IIF	14 54	14 55.4	6	22.0	6.0*
	+31A	ABS	P.B. Decr. A	15 00	15 25	90	-9.8	-4.6*
	└ 2	S/F	Simple IF	15 50	15 51	4	2.0	1.0
	3	S	Simple II	17 19.5	17 20	5	13.4	4.4
	┌21	GRF	SimpIIIA GRF	20 10	21 10	>300	18.4	4.4
	| 4	S/F	Simple IIF	20 12	20 15	12	58.0	14.6
	| 1	S	Simple I	20 39	20 39.5	2	2.4	1.2
	| 1	S	Simple I	22 06	22 07.5	4	5.2	2.0
	└ 2	S/F	Simple IF	23 08	23 09	7	2.2	---*
22	┌23	GRF	SimpIIIAF GRF	12 50	13 04	27	2.4	1.2**
	└ 1	S	Simple I	13 09	13 10.5	2.5	2.4	1.2**
	┌ 2	S/F	Simple IF	13 40.5	13 41.1	2	7.4	4.0**
	+30	PBI	P.B. Incr. A	13 42.5	13 42.5	12	2.4	1.2**
	| 1	S	Simple I	13 44.5	13 45.3	2	5.4	1.8**
	└ 1	S	Simple I	13 47.5	13 48	2	1.4	0.7**

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

April 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	MINUTES		
22	21 GRF	SimpIIIA GRF	14 10	14 50	170	3.2	1.6
	8 S	Spike	14 48.1	14 48.1	0.1	7.4	---
	23 GRF	SimpIIIAF GRF	17 20	19 50	200	2.8	1.8
	2 S/F	Simple IF	17 47.5	17 48.5	2	9.8	3.6
	8 S	Spike	19 16.7	19 16.7	0.3	7.0	---
	21 GRF	SimpIIIA GRF	21 40	00 50	>250	36.0	---*
	4 S/F	Simple IIF	22 13.7	22 14.7	5.3	138.0	29.0
	29 PBI	P.B. Increase	22 19	22 19	22	7.0	2.4
	47 GB	Grt Burst (-)	22 49.5	22 54	15.5	840.0	98.0*
	29 PBI	P.B. Increase	23 05	23 05	55	11.4	3.8*
	45 C	Complex (-)	00 34	00 53	39	91.0	32.6*
23	20 GRF	SimpIII GRF	12 15	12 40	90	2.6	1.3**
	21 GRF	SimpIIIA GRF	13 50	14 00	70	3.6	1.8**
	4 S/F	Simple IIF	13 51.5	13 52.8	5	47.6	18.4**
	240 R	Rise Only	15 05	15 15	10	2.8	1.4
	21 GRF	SimpIIIA GRF	15 40	16 55	200	13.0	5.5
	47 GB	Grt Burst (-)	16 11	16 32	45	588.0	89.0
	21 GRF	SimpIIIA GRF	18 05	18 25	50	3.6	2.1
	40 F	Fluctuations	18 06	18 06.2	2	2.6	---
	21 GRF	SimpIIIA GRF	19 50	20 15	60	3.8	1.9
	1 S	Simple I	19 53.5	19 54.2	1.5	2.6	1.2
	1 S	Simple I	20 29	20 29.5	1	4.6	2.0
	1 S	Simple I	22 16	22 17.8	5	5.0	1.7
	20 GRF	SimpIII GRF	22 45	23 50	185	8.6	4.6*
24	21 GRF	SimpIIIA GRF	E11 00	13 00	350	11.0	---
	1 S	Simple I	15 39.8	15 40	2	2.0	1.0
	8 S	Spike	16 20.2	16 20.3	0.7	8.8	1.8
	240A R	Rise Only A	17 25	18 20	55	5.4	2.7
	1 S	Simple I	17 29.8	17 30	3	5.8	1.8
	40 F	Fluctuations	19 21.5	19 22.3	1.5	4.4	---
	8 S	Spike	19 34	19 34.1	0.5	3.0	---
	45 C	Complex (-)	19 51.8	19 51.9	2.5	15.2	5.1
	240 R	Rise Only	20 00	20 15	15	2.2	1.1*
	46F C	Complex F (-)	20 16	20 18	6.5	154.0	34.0
	20 GRF	SimpIII GRF	21 15	21 35	65	5.0	2.5
	20 GRF	SimpIII GRF	22 25	22 50	40	2.4	1.2*

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	MINUTES		
24	45	C Complex (-)	23 19.2	23 20.5	2	39.0	14.6*
	┌28	PRF Precursor	23 52	23 53.5	5	19.6	---*
	└47	GB Grt Burst (-)	23 57	00 01.1	7	67210.0	2025.0*
25	47	GB Grt Burst (-)	00 39	01 38.5	>70	2125.0	---*
	20	GRF SimpIII GRF	10 55	11 05	25	4.2	1.4**
	┌21	GRF SimpIIIA GRF	11 22	12 15	90	3.6	2.8**
	└ 1	S Simple I	12 25	12 28.5	6	5.4	2.0**
	┌ 3	S Simple II	14 04	14 05.5	3	14.2	6.8*
	└29	PBI P.B. Increase	14 07	14 07	40	3.4	1.7
	4	S/F Simple IIF	14 56	14 58	10.5	46.4	8.6a
	240	R Rise Only	17 15	17 42	27	7.4	2.0
	┌21	GRF SimpIIIA GRF	17 43	18 14	70	8.4	4.0
	├22	GRF SimpIIIF GRF	17 45	17 47.5	11	9.6	3.4
	└40	F Fluctuations	18 07.4	18 07.5	2.5	2.8	---
	4	S/F Simple IIF	19 20	19 20.5	2	21.0	6.0
	2	S/F Simple IF	19 31	19 33.2	6	7.4	2.0
	┌21	GRF SimpIIIA GRF	20 10	20 30	65	3.4	2.4
	└ 1	S Simple I	21 03.9	21 04.1	2	2.4	1.2
	┌240A	R Rise Only A	21 37	22 03	26	5.6	2.6
	└ 1	S Simple I	21 40	21 43.3	8	5.4	1.8
	┌21	GRF SimpIIIA GRF	22 55	23 25	70	5.2	2.6*
	└ 1	S Simple I	23 31	23 31.7	2	9.0	4.0*
26	46F	C Complex F (-)	00 38	00 44.7	11	56.0	12.0*
	┌21	GRF SimpIIIA GRF	11 10	11 25	85	8.4	3.8**
	└20	GRF SimpIII GRF	12 15	12 18	17	8.8	3.0**
	┌46F	C Complex F (-)	12 41	12 55	22	95.0	31.2**
	└29	PBI P.B. Increase	13 03	13 03	125	33.0	13.0**
	20	GRF SimpIII GRF	15 35	15 38	30	2.0	1.0
	┌46F	C Complex F (-)	17 21.5	17 22.8	8.5	114.0	39.2
	└29	PBI P.B. Increase	17 30	17 30	20	8.2	2.8
	8	S Spike	18 10.4	18 10.4	0.1	5.0	---
	3	S Simple II	18 45.5	18 45.9	1.3	12.2	4.8
	┌21	GRF SimpIIIA GRF	22 18	22 23	40	3.2	1.6*
	└ 8	S Spike	22 50	22 50.3	0.8	3.2	1.6*
27	20	GRF SimpIII GRF	00 10	00 20	30	3.2	1.6*
	20	GRF SimpIII GRF	01 10	01 35	>40	7.2	---*

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

a) ARO 2800MHz 46.4 F U DRAO 2700MHz 130.0 F U

April 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KFY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.			H M	H M	MINUTES		
27	20 GRF	SimpIII GRF	12 45	13 05	40	2.8	1.4**
	r 28 PPE	Precursor	13 50	13 52	9	2.4	---**
	+ 45 C	Complex (-)	13 59	14 07.3	13	70.0	39.8*
	+ 30 PBI	P.B. Incr. A	14 12	14 12	370	28.0	11.2
	| 1 S	Simple I	15 00	15 02	5	2.8	1.4
	|r23 GRF	SimpIIIAF GRF	16 40	17 15	130	8.4	4.2
	|| 1 S	Simple I	16 53	16 53.2	2	4.2	2.6
	|L 1 S	Simple I	17 39.5	17 41.2	3.5	6.0	3.0
	L 1 S	Simple I	19 17.8	19 17.9	1	2.2	---
	20 GRF	SimpIII GRF	20 25	20 45	45	2.8	1.4
	20 GRF	SimpIII GRF	22 10	22 12	13	3.6	1.8
	20 GRF	SimpIII GRF	22 45	22 57	25	3.0	1.5*
28	r21 GRF	SimpIIIA GRF	13 20	13 32	30	4.6	2.3**
	L 1 S	Simple I	13 28	13 30	3	3.6	1.8**
	- -	Oscillation	14 35	Inlet.	155	6.0	---
	20 GRF	SimpIII GRF	17 18	17 48	80	11.6	5.8
	r 21 GRF	SimpIIIA GRF	20 05	21 55	195	6.6	3.6
	|r 4 S/F	Simple IIF	20 16.8	20 18.5	8.2	360.0	80.0
	LL29 PBI	P.B. Increase	20 25	20 25	25	19.0	6.4
29	45 C	Complex (-)	00 10	00 15.1	8	21.0	7.0*
	20 GRF	SimpIII GRF	12 05	12 20	40	5.6	1.9**
	r21 GRF	SimpIIIA GRF	13 35	15 30	480	10.6	5.3
	| 1 S	Simple I	14 00	14 03	5	4.6	2.3
	| 3 S	Simple II	14 32	14 33.5	6	30.0	7.8
	|20 GRF	SimpIII GRF	17 10	17 35	40	4.6	2.3
	| 2 S/F	Simple IF	17 54	17 55	2	7.2	2.4
	| 8 S	Spike	17 58.5	17 58.5	0.1	3.6	---
	L20 GRF	SimpIII GRF	18 25	19 00	135	4.0	3.0
	r21 GRF	SimpIIIA GRF	22 40	23 55	155	8.2	4.0*
	L 4 S/F	Simple IIF	23 16	23 20	7	13.8	6.0*
30	r21 GRF	SimpIIIA GRF	11 25	12 05	235	22.6	7.6**
	L 3 S	Simple II	11 50	11 53.6	11	125.0	39.4**
	1 S	Simple I	15 43	15 43.7	1.8	9.2	---
	r21 GRF	SimpIIIA GRF	17 38	17 45	37	6.6	3.3
	| 3 S	Simple II	17 40.5	17 41	3.5	50.0	12.6
	L 1 S	Simple I	17 50	17 51	2	2.6	1.3

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

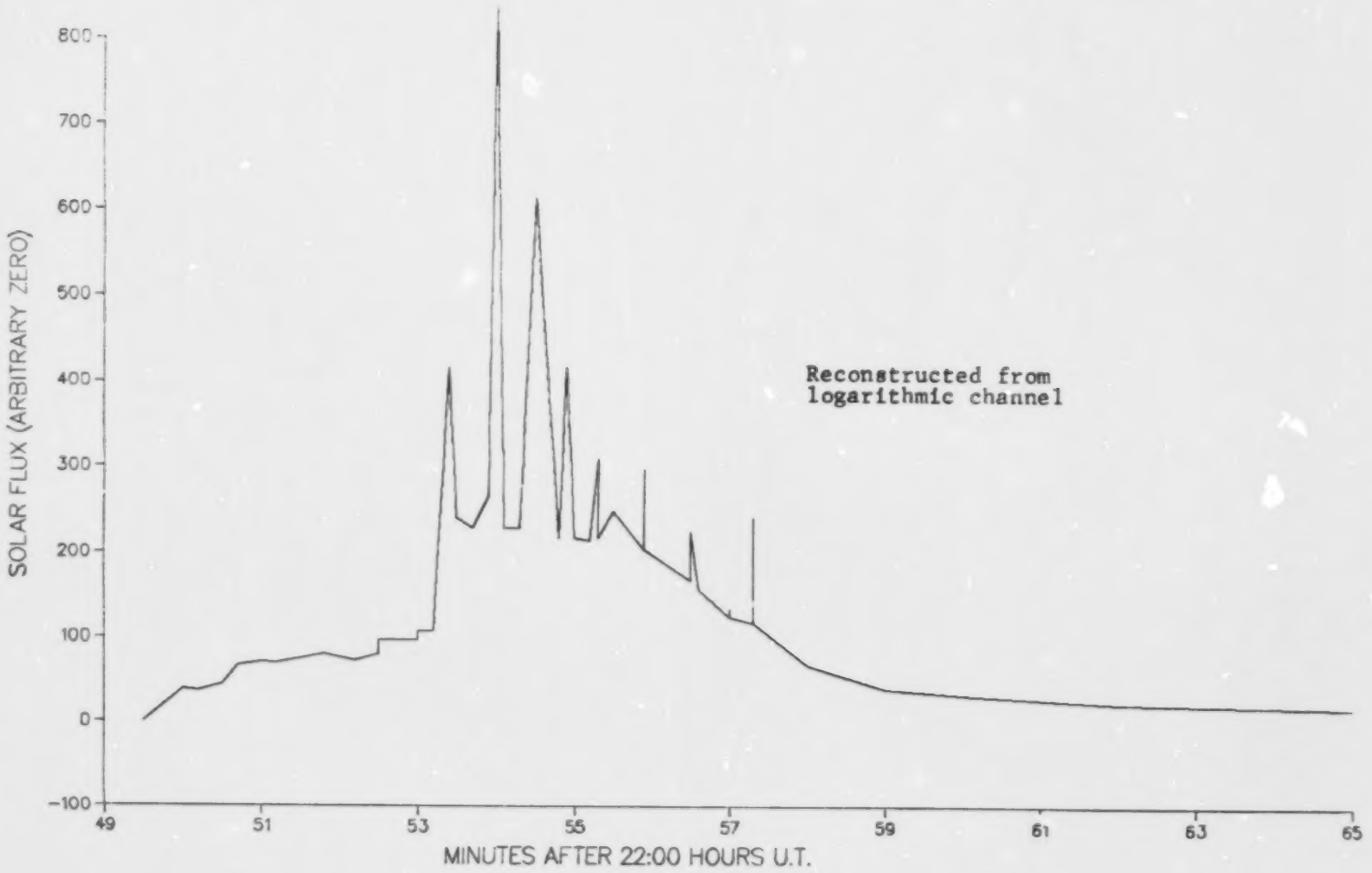
OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY		CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Apr.				H M	H M	MINUTES		
30	1	S	Simple I	20 18	20 19	2	2.6	1.4*
	21	GRF	SimpIIIA GRF	20 35	21 35	215	3.8	2.0
	20	GRF	SimpIII GRF	22 41	22 44	15	2.8	1.4*

* Only observed at DRAO, Penticton.

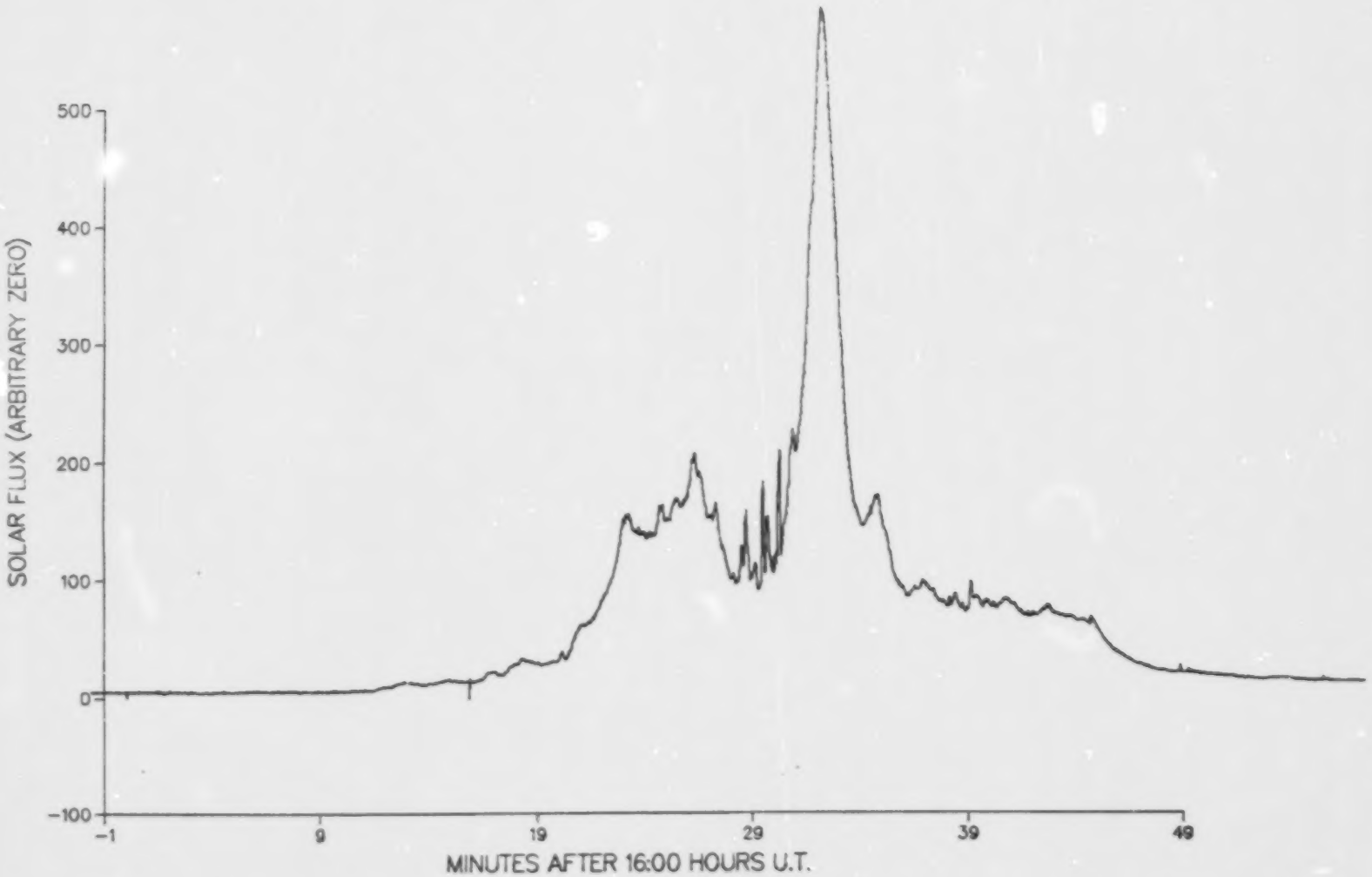
APRIL 22, 1984

SELECTED 2700 MHz SOLAR NOISE BURST
D.R.A.O. PENTICTON, B.C.
CANADA



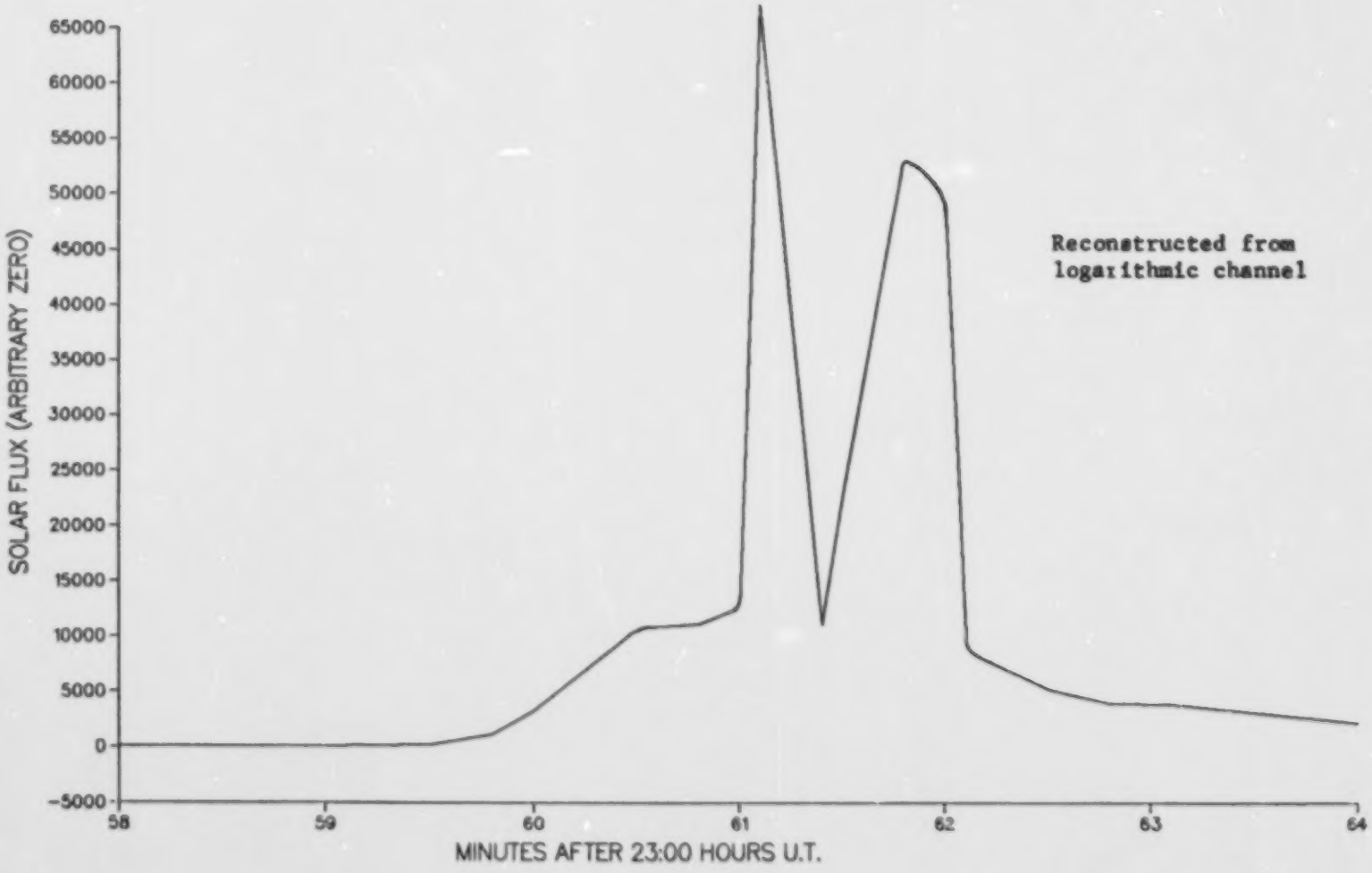
APRIL 23, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



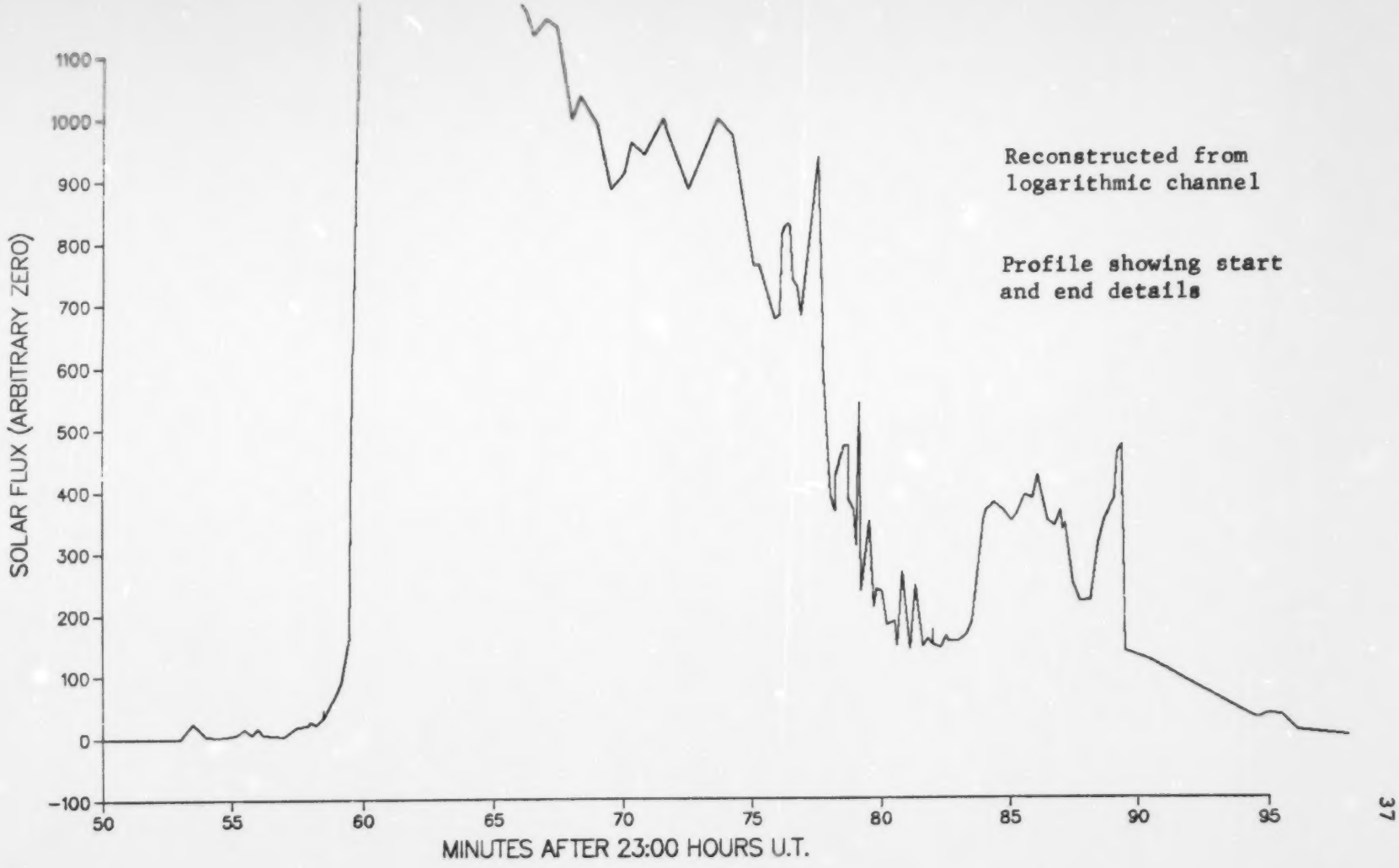
APRIL 24 1984

SELECTED 2700 MHz SOLAR NOISE BURST
D.R.A.O. PENTICTON, B.C.
CANADA



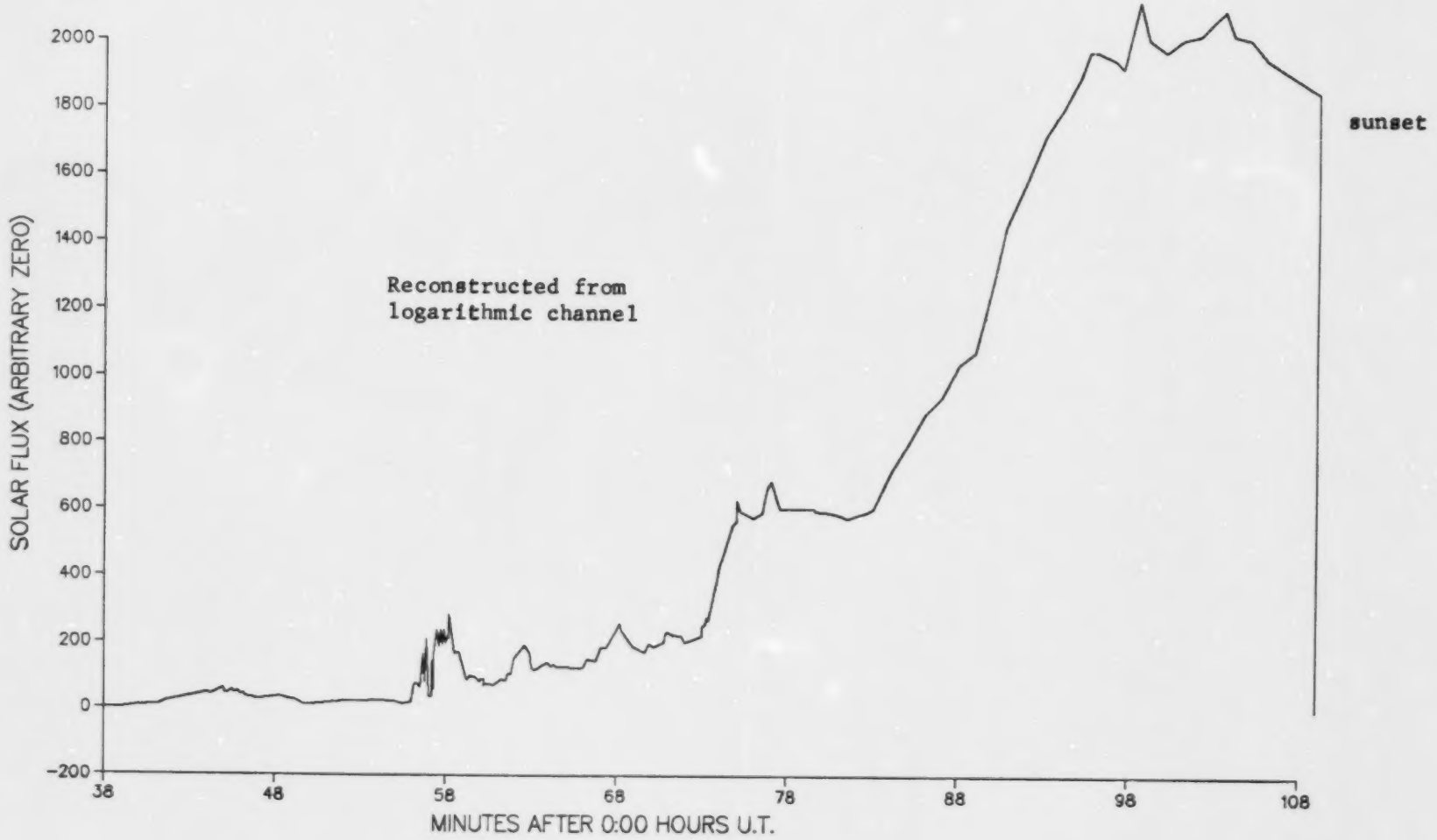
APRIL 24 1984

SELECTED 2700 MHz SOLAR NOISE BURST
D.R.A.O. PENTICTON, B.C.
CANADA



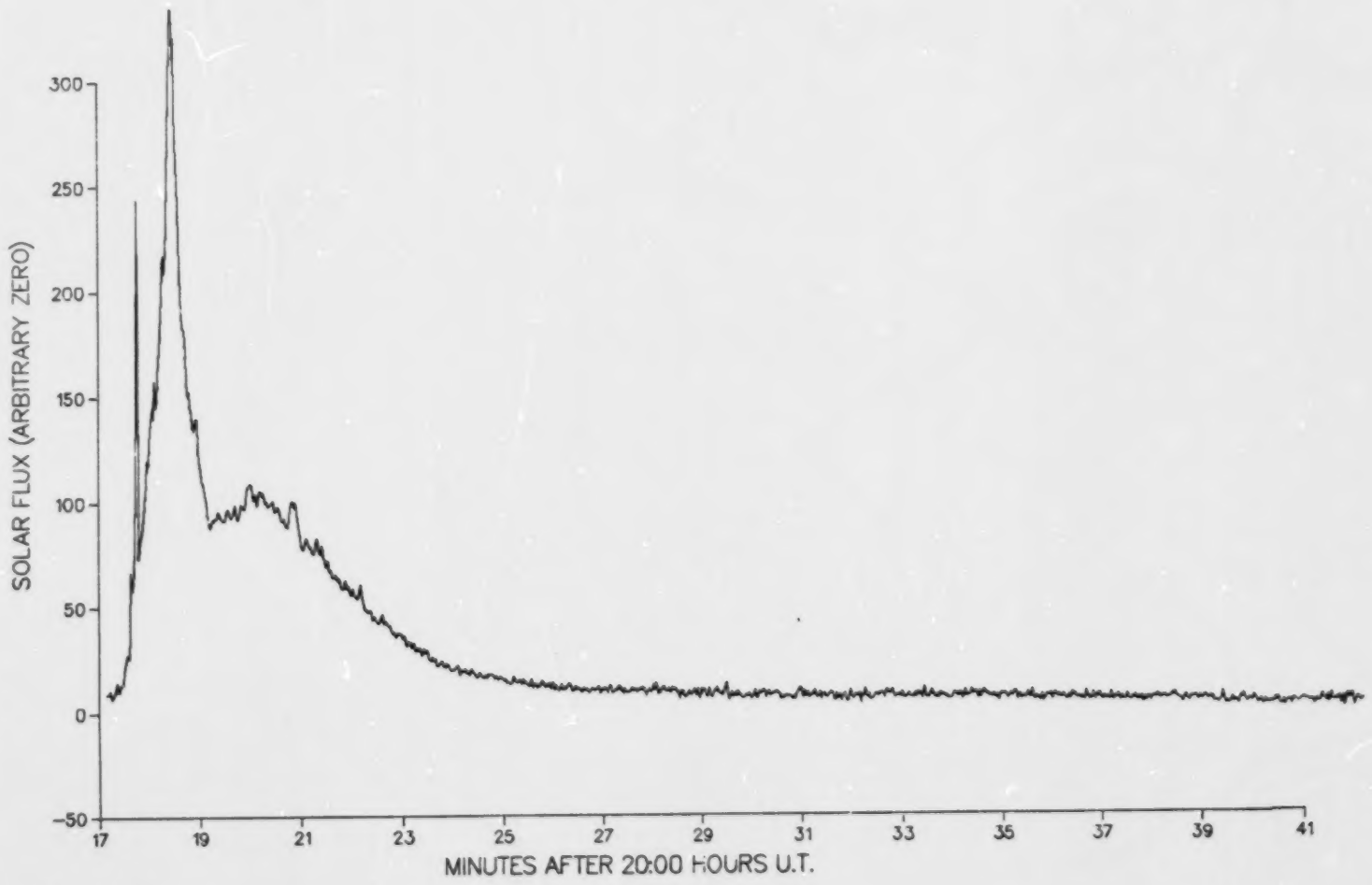
APRIL 25, 1984

SELECTED 2700 MHz SOLAR NOISE BURST
D.R.A.O. PENTICTON, B.C.
CANADA



APRIL 28, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA

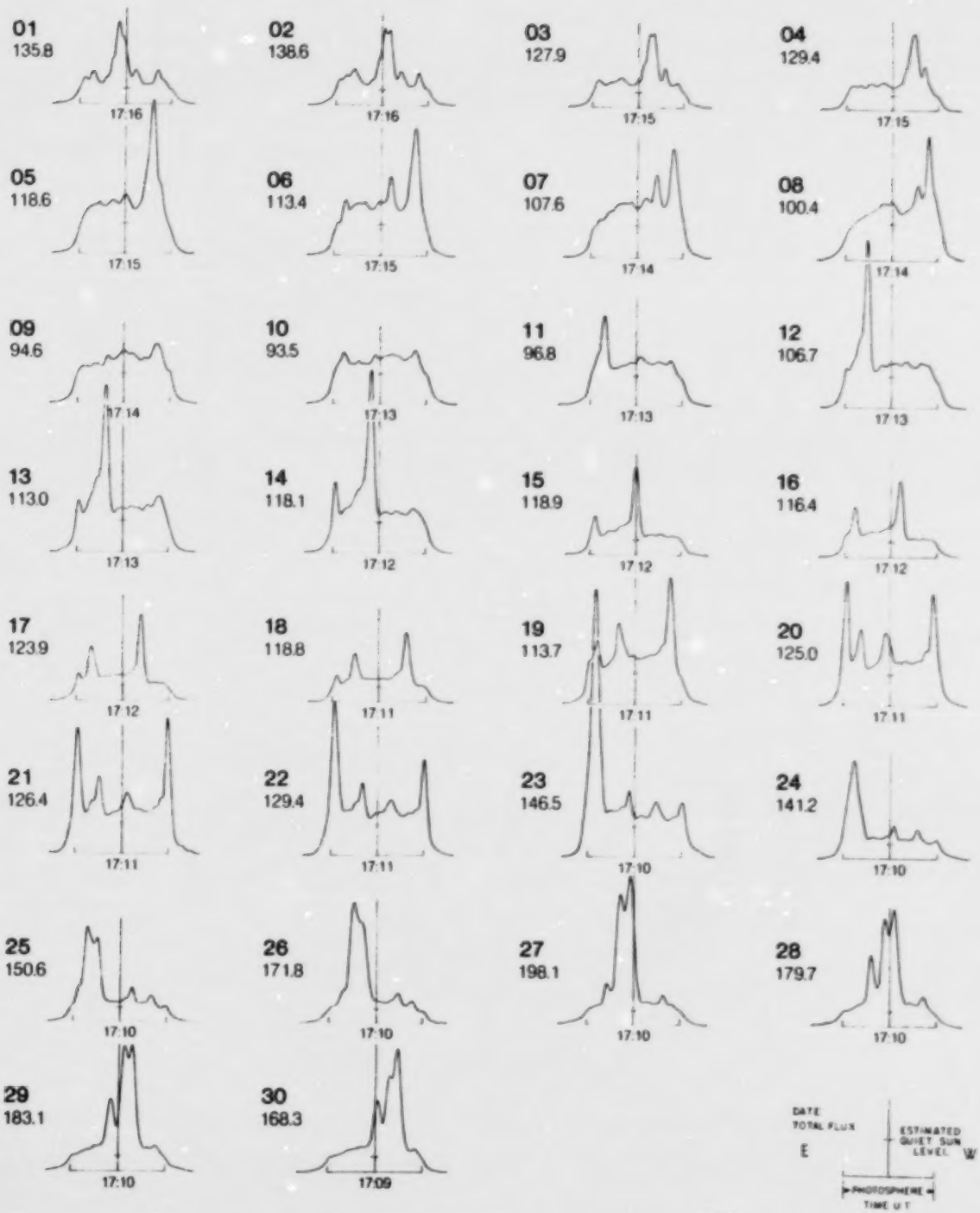


EAST-WEST SOLAR SCANS

APRIL 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



May 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
May.	Series C	Series C	Series D
1	151.3	153.7	138.3
2	137.1#	139.3#	125.4#
3	121.0	123.1	110.8
4	111.6#	113.5#	102.1#
5	112.9	114.9	103.4
6	106.2	108.1	97.3
7	116.1	118.3	106.5
8	119.6	121.9	109.7
9	135.7	138.3	124.5
10	147.9	150.9	135.8
11	145.0	147.9	133.1
12	145.2#	148.2#	133.4#
13	148.3	151.4	136.3
14	143.7	146.9	132.2
15	136.6	139.6	125.6
16	134.2	137.3	123.6
17	127.2	130.1	117.1
18	128.8	131.9	118.7
19	134.4	137.6	123.8
20	134.8	138.0	124.2
21	141.8#	145.3#	130.8#
22	126.9	130.1	117.1
23	126.7	130.0	117.0
24	123.7	126.9	114.2
25	122.5#	125.7#	113.1#
26	117.8	121.0	108.9
27	117.1	120.3	108.3
28	115.4	118.5	106.6
29	117.7	121.0	108.9
30	116.4b	119.7b	107.7b
31	112.7	115.9	104.3
Mean:	128.3	131.1	118.0

Corrected for burst.
b) Interpolated

May 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-APO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
May.	14:00	17:00	20:00	19:35
1	156.7	151.3	151.1	148.6
2	142.4	137.1#	134.1#	134.4#
3	122.8	121.0	120.8	121.9
4	113.1	111.6#	110.2#	108.7#
5	112.3#	112.9	106.5	-----
6	109.1	106.2	105.2	-----
7	116.0#	116.1	116.2	112.5
8	119.0#	119.6	121.7#	119.8
9	131.6	135.7	137.9	135.2
10	147.5	147.9	142.5	138.5
11	141.7	145.0	145.0#	139.5#
12	144.7	145.2#	143.9	-----
13	149.8	148.3	146.1	-----
14	144.8	143.7	141.5	139.0
15	135.7	136.6	136.8	133.9
16	134.2#	134.2	134.0	131.0
17	127.6#	127.2	129.5	126.9
18	127.7	128.8	127.6	125.8
19	132.1	134.4	138.6#	-----
20	136.5	134.8	130.5	-----
21	135.4	141.8#	142.4#	-----
22	126.9a	126.9	127.5	126.2
23	124.2	126.7	126.4	124.8
24	124.9	123.7	120.7	118.5
25	126.0	122.5#	121.6#	121.9
26	117.4#	117.8	119.8#	-----
27	118.8	117.1	116.8	-----
28	114.9	115.4	117.9	116.2
29	116.1	117.7	117.8#	117.5#
30	116.4	116.4b	117.9#	116.1
31	114.7	112.7	113.8	111.7
Mean:	128.4	128.3	127.8	125.8

* Corrected for burst.
a) Extrapolated
b) Interpolated

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
May.			H M	H M	MINUTES		
1	21 GRF	SimpIIIA GRF	00 20	01 40	>50	43.0	---*
	22 GRF	SimpIIIF GRF	01 02	01 13	20	16.4	8.0*
	4 S/F	Simple IIF	01 24	01 28.5	13	144.0	46.4*
	21 GRF	SimpIIIA GRF	11 40	Indet.	105	3.8	2.2**
	1 S	Simple I	12 21	12 22.2	6	4.6	1.6**
	260 FAL	Fall Only	16 15	16 55	40	-3.8	---
	20 GRF	SimpIII GRF	19 00	19 01	12	3.2	1.2
	20 GRF	SimpIII GRF	20 15	20 20	110	3.2	2.2
	26A FAL	Fall A	22 30	23 55	85	-6.4	-3.2*
	20 GRF	SimpIII GRF	23 15	23 17	30	5.4	1.8*
2	20 GRF	SimpIII GRF	11 35	12 10	105	13.0	6.0**
	20 GRF	SimpIII GRF	14 10	14 20	30	2.6	1.3
	20 GRF	SimpIII GRF	14 50	15 00	25	3.4	2.0
	21 GRF	SimpIIIA GRF	16 05	16 12	125	8.0	2.7
	2 S/F	Simple IF	16 13.2	16 14.2	4	6.8	3.4
	22 GRF	SimpIIIF GRF	18 25	18 35	35	8.2	3.0
	46F C	Complex F (-)	19 10	19 20.1	25	113.0	38.4
	29 PBI	P.B. Increase	19 35	19 35	60	13.8	6.4
	260 FAL	Fall Only	21 20	21 45	25	-5.6	-3.7
	20 GRF	SimpIII GRF	22 05	22 35	60	4.4	2.2
	20 GRF	SimpIII GRF	23 25	23 57	90	4.0	2.0*
3	20 GRF	SimpIII GRF	11 40	12 50	110	3.0	2.0**
	20 GRF	SimpIII GRF	16 00	16 05	120	2.2	1.1**
	260 FAL	Fall Only	14 30	14 55	25	-2.0	-1.0**
	20 GRF	SimpIII GRF	23 30	23 40	60	4.6	2.3*
4	21 GRF	SimpIIIA GRF	16 05	17 25	320	7.0	5.0
	4 S/F	Simple IIF	16 07.2	16 09	15	70.0	18.2
	240 F	Rise Only	23 28	23 38	10	2.2	1.0*
5	21 GRF	SimpIIIA GRF	11 20	Indet.	290	24.0	---**
	46F C	Complex F (-)	11 29	11 42	50	150.0	43.0**
	47 GB	Grt Burst (-)	12 21	12 25.4	61	1135.0	203.0**
	32 ABS	Absorption	15 00	15 28	47	4.2	2.1
	45 C	Complex (-)	18 10.5	18 14.5	14.5	190.0	40.4
	29 PBI	P.B. Increase	18 25	18 25	15	6.0	2.0
6	1 S	Simple I	20 05.9	20 06	1	1.8	0.9*
7	23 GRF	SimpIIIAF GRF	12 45	13 25	285	8.4	3.2**

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

May 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE		FFY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
May.				H M	H M	MINUTES		
7	⌞	1	S Simple I	14 36.9	14 37	2	2.8	0.8
		20	GRF SimpIII GRF	23 45	00 20	90	2.2	1.4*
8		20	GRF SimpIII GRF	12 05	14 10	255	4.4	3.0**
		240	R Rise Only	18 05	18 20	15	2.2	1.1
		2	S/F Simple IF	18 51	18 52.8	5	4.4	1.4
	⌜	21	GRF SimpIIIA GRF	19 35	20 40	150	3.4	2.0
	⌞	1	S Simple I	21 17	21 20	7	5.8	3.0
	⌞	29	PBI P.B. Increase	21 24	21 24	16	2.2	1.1
9		20	GRF SimpIII GRF	00 40	01 20	>70	3.8	---*
		240	R Rise Only	13 35	14 05	30	6.2	3.0**
		1	S Simple I	14 13	14 15	4	2.6	1.6*
	⌜	28	PRE Precursor	15 29.3	15 29.8	5.7	5.0	---
	+	46F	C Complex F (-)	15 35	15 42	12	48.0	21.2
	+	30	PBI P.B. Incr. A	15 47	15 47	50	12.8	4.3
	⌞	21	GRF SimpIIIA GRF	15 59	16 05	25	6.8	2.6
	⌞	1	S Simple I	16 05	16 05.8	2	4.4	2.2
	⌜	27F	FF Rise & Fall F	19 20	Indet.	260	2.2	2.0
	⌞	24	R Rise	19 20	19 30	10	2.2	1.4
	⌞	24P	R Post Rise	19 30	-- --	225	2.2	---
	⌞	8	S Spike	22 55.8	22 55.9	0.5	8.0	---*
	⌞	26	FAI Fall	23 15	23 40	25	-2.2	-1.1*
10		1	S Simple I	01 16	01 16.7	1.8	2.2	1.1*
		3	S Simple II	01 19.5	01 21	5	15.2	3.8*
	⌜	27A	RF Rise & Fall A	13 00	Indet.	360	2.6	2.4
	⌞	24	R Rise	13 00	13 15	15	2.6	1.3**
	⌞	24P	R Post Rise	13 15	-- --	310	2.6	---**
	⌞	8	S Spike	13 39.2	13 39.2	0.1	5.2	---**
	⌞	1	S Simple I	13 49	13 51	9	2.0	1.0**
	⌞	20	GRF SimpIII GRF	15 35	15 52	35	7.8	2.6
	⌞	1	S Simple I	16 51	16 52	2	1.6	---
	⌞	3	S Simple II	17 21	17 23.3	9	256.0	64.0
	⌞	30	PBI P.B. Incr. A	17 30	17 30	50	15.4	7.4
	⌞	1	S Simple I	17 51	17 51.5	4	6.2	2.0
	⌞	26	FAL Fall	18 25	19 00	35	-2.6	-1.3
		20	GRF SimpIII GRF	22 10	23 45	190	3.0	1.6*
11		240	R Rise Only	15 15	15 45	30	2.6	1.3

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
May.				H M	H M	MINUTES		
11	20	GRF	SimpIII GRF	17 05	17 13	25	2.0	1.0
	22	GRF	SimpIIIF GRF	19 10	19 35	75	4.6	2.3
	21	GRF	SimpIIIA GRF	20 30	20 51	80	15.0	5.0
	22	GRF	SimpIIIF GRF	20 35	20 37.8	12	10.4	5.4
	4	S/F	Simple IIF	20 51	20 52.2	4	10.8	2.8
	20	GRF	SimpIII GRF	22 20	22 30	95	3.0	1.7
12	1	S	Simple I	00 15.8	00 16.1	1	2.0	1.0*
	1	S	Simple I	01 13	01 15	6	3.6	1.6*
	1A	S	Simple IA	12 55	13 00	10	3.0	1.6**
	1	S	Simple I	12 57.2	12 58	1.5	3.6	1.8**
	20	GRF	SimpIII GRF	15 35	15 45	35	2.4	1.2
	21	GRF	SimpIIIA GRF	16 35	17 10	85	4.2	2.1
	20	GRF	SimpIII GRF	17 15	17 16	15	3.0	1.5
	32	ABS	Absorption	18 20	19 00	110	-3.8	-1.9
	1	S	Simple I	23 05.2	23 06.7	6	6.2	3.3*
13	1	S	Simple I	00 40	00 41	1.2	3.6	1.8*
	20	GRF	SimpIII GRF	00 47	00 55	35	2.6	1.3*
	23	GRF	SimpIIIAF GRF	14 35	14 57	110	4.6	1.6
	20	GRF	SimpIII GRF	15 40	15 50	40	5.0	2.6
	20	GRF	SimpIII GRF	17 40	17 50	45	6.4	2.8
	240	R	Rise Only	20 05	20 14	9	2.8	---
	20	GRF	SimpIII GRF	22 25	22 40	70	2.6	1.3*
	20	GRF	SimpIII GRF	23 45	23 55	55	3.8	1.9*
14	21	GRF	SimpIIIA GRF	12 15	12 25	40	4.0	2.0**
	1	S	Simple I	12 15.5	12 16	4	4.0	1.5**
	1	S	Simple I	12 20.5	12 20.8	2	9.0	3.0**
	8	S	Spike	16 47	16 47	0.1	3.0	---
	260	FAI	Fall Only	17 10	17 30	20	-2.2	-1.1
	22	GRF	SimpIIIF GRF	17 58	18 15	120	6.2	1.8
	20	GRF	SimpIII GRF	20 45	20 55	25	3.2	1.6
	21	GRF	SimpIIIA GRF	23 10	23 19	25	4.0	2.0*
	4	S/F	Simple IIF	23 11.8	23 12	1.5	11.2	5.6*
	20	GRF	SimpIII GRF	23 50	00 10	60	3.8	1.9*
15	21	GRF	SimpIIIA GRF	17 00	17 40	120	3.0	1.8
	3	S	Simple II	17 02.5	17 03.1	7	77.0	13.0*
	1	S	Simple I	17 57.5	17 58	2	1.4	0.7

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE May.	KEY		CLASS	START U.T. H M	MAXIMUM U.T. H M	DURATION MINUTES	PEAK FLUX	MEAN FLUX
15	8	S	Spike	20 31.3	20 31.5	0.3	3.6	---
	1	S	Simple I	21 14.7	21 15	1.5	2.2	0.8
16	20	GRF	SimpIII GRF	00 30	01 10	>70	3.8	---*
	┌21	GRF	SimpIIIA GRF	11 45	13 00	155	2.8	1.8**
	└ 2	S/F	Simple IF	13 28	13 31.2	7	5.0	1.8**
17	┌21	GRF	SimpIIIA GRF	11 00	13 05	270	3.0	1.5**
	└ 2	S/F	Simple IF	13 42	13 43.5	4	3.6	1.2**
	1	S	Simple I	18 20.2	18 20.7	2	3.4	1.4
	1	S	Simple I	20 43	20 45	6	2.4	1.2
	3	S	Simple II	21 06.9	21 07	1.2	12.0	4.6
18	┌21	GRF	SimpIIIA GRF	13 05	13 25	55	3.0	1.5**
	└ 1	S	Simple I	13 08	13 10	3	2.2	1.1**
19	20	GRF	SimpIII GRF	12 35	13 00	55	2.2	1.1**
	240	R	Rise Only	16 30	17 10	40	3.0	1.5
	1	S	Simple I	17 30	17 30.3	2	3.8	1.3
	240	R	Rise Only	18 35	18 50	15	3.0	1.5**
	22	GRF	SimpIIIF GRF	19 25	20 05	60	3.6	1.8
	20	GRF	SimpIII GRF	20 30	20 50	70	4.8	2.4
	┌47	GB	Grt Burst (-)	21 51	21 52.8	14	1805.0	225.0
	┤30	PBI	P.B. Incr. A	22 05	22 05	135	15.8	4.0
	│ 3	S	Simple II	22 17	22 17.2	1.5	13.6	3.8
	└20	GRF	SimpIII GRF	23 15	23 50	60	2.6	1.7*
20	┌ 4	S/F	Simple IIF	01 25.5	01 26.8	3.5	126.0	48.6*
	┤30	PBI	P.B. Incr. A	01 29	01 29	13	8.2	2.6*
	└ 1	S	Simple I	01 29.2	01 29.7	1	3.0	1.5*
	4	S/F	Simple IIF	11 14.5	11 16	5.5	137.0	---**
	20	GRF	SimpIII GRF	11 50	12 10	40	2.2	1.4**
	20	GRF	SimpIII GRF	13 33	13 35	11	10.2	4.0**
	1	S	Simple I	15 13.9	15 14.3	4	8.4	2.8
	4	S/F	Simple IIF	20 18.7	20 19.3	2	11.8	3.9
	┌240A	R	Rise Only A	22 27	22 30	3	2.2	1.1
	└40	F	Fluctuations	22 27	22 27.7	1	161.0	---
	┌47	GB	Grt Burst (-)	22 33.8	22 35.5	36.2	8775.0	585.0
	└29	PBI	P.B. Increase	23 10	23 10	125	28.0	9.2*
21	┌240A	R	Rise Only A	13 26	13 42	16	5.8	2.9**
	└40	F	Fluctuations	13 26.3	13 29.2	10	9.0	---**

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
May.				H M	H M	MINUTES		
21	⌜ 4	S/F	Simple IIF	14 03.9	14 04.2	2.1	19.2	---*
	⌞29	PBI	P.B. Increase	14 06	14 06	10	2.8	1.4*
	⌜21	GRF	SimpIIIA GRF	14 49	14 55	20	2.4	1.2
	⌞ 2	S/F	Simple IF	14 49	14 51	3	3.6	1.6
	240F	R	Rise Only F	15 40	16 00	20	3.6	---
	8	S	Spike	16 15.7	16 15.8	0.5	2.0	1.0
	⌜21	GRF	SimpIIIA GRF	16 20	16 21	20	3.0	1.2
	⌞40	F	Fluctuations	16 32	16 32	0.5	1.8	---
	1	S	Simple I	16 45	16 46.2	4	3.4	1.1
	⌜ 23	GRF	SimpIIIAF GRF	16 50	17 10	160	13.2	---
	⌊ 8	S	Spike	16 55.8	16 55.8	0.1	6.0	---
	⌊⌜21	GRF	SimpIIIA GRF	17 44	18 25	85	11.2	6.0
	⌊⌊ 4	S/F	Simple IIF	17 44	17 45.9	10	41.0	6.2
	⌊⌊46F	C	Complex F (-)	17 56	18 06	26	42.0	10.3
	⌜21	GRF	SimpIIIA GRF	19 50	21 00	220	29.0	12.2
	⌊20	GRF	SimpIII GRF	19 50	19 58	22	4.8	2.4
	⌞ 4	S/F	Simple IIF	20 17	20 20.6	23	233.0	36.6
	1	S	Simple I	23 36	23 37.5	8	4.6	2.0*
22	20	GRF	SimpIII GRF	00 15	01 10	>90	4.6	---*
	⌜47	GB	Grt Burst (-)	14 51	15 00	15	510.0	208.0
	⌊30	PBI	P.B. Incr. A	15 06	15 06	105	26.0	4.8
	⌊ 2	S/F	Simple IF	15 06	15 06.5	3	8.0	4.0
	⌊40	F	Fluctuations	15 16	15 18.7	11	11.0	---
	⌞20	GRF	SimpIII GRF	15 30	15 40	70	7.0	2.4
	32	ABS	Absorption	16 55	17 25	42	-2.2	-1.2
23	1	S	Simple I	12 51	12 54	7	2.0	1.0**
	20	GRF	SimpIII GRF	12 59	13 01	11	2.4	1.2**
	⌜ 4	S/F	Simple IIF	16 34.9	16 35.2	1.1	18.4	8.0**
	⌊30	PBI	P.B. Incr. A	16 36	16 36	20	2.0	1.0**
	⌞ 1	S	Simple I	16 37	16 37.7	1.2	4.0	2.0**
	20	GRF	SimpIII GRF	17 40	18 25	60	2.4	1.2
	20	GRF	SimpIII GRF	20 05	20 20	30	1.8	1.0
	⌜21	GRF	SimpIIIA GRF	23 10	23 57	75	4.4	2.2*
	⌞ 2	S/F	Simple IF	23 45.5	23 48.5	6	7.4	2.6*
25	260	FAL	Fall Only	11 55	12 12	17	-3.0	-1.5**
	20	GRF	SimpIII GRF	14 55	15 20	80	3.0	1.5

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

May 1984

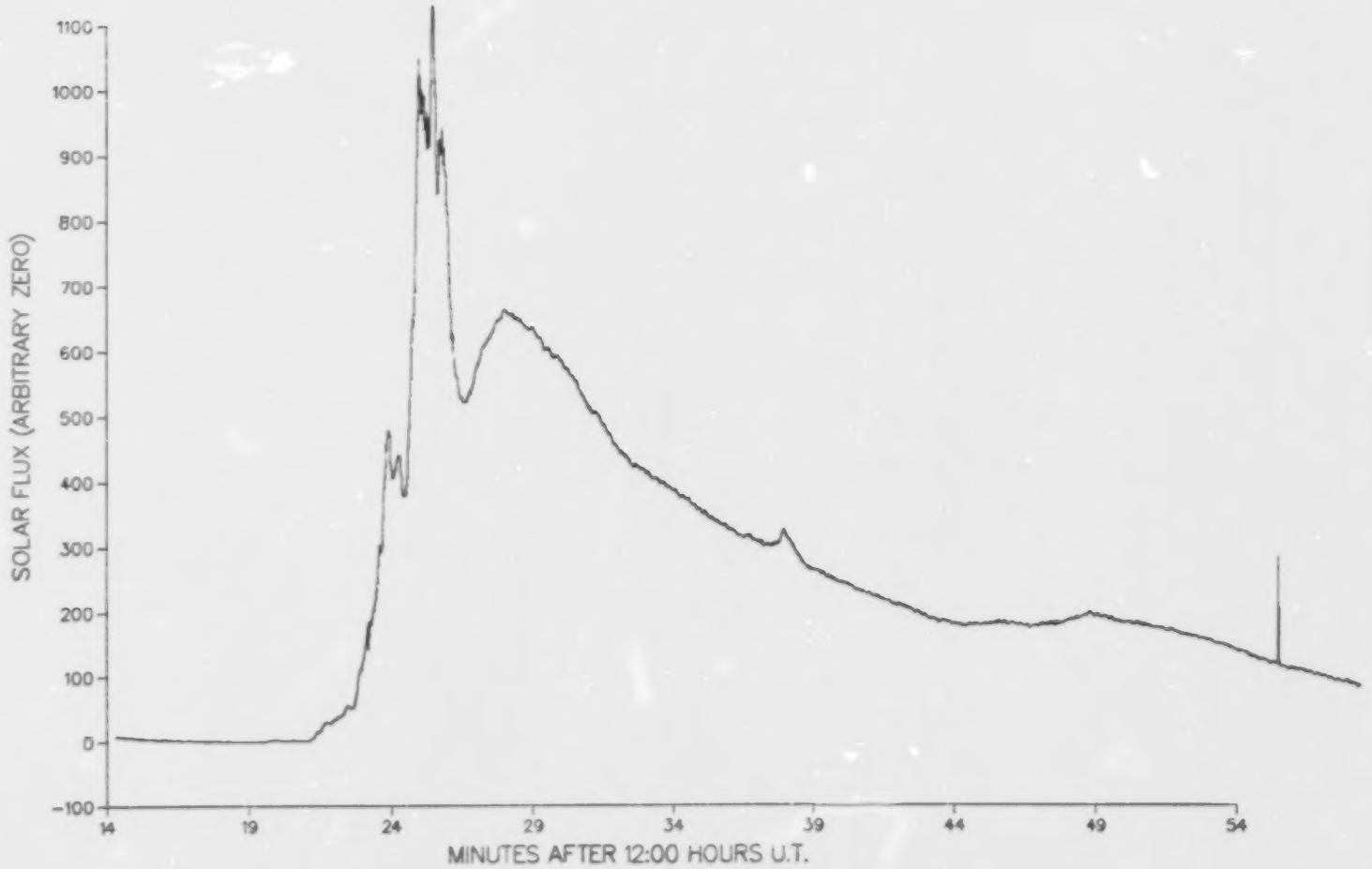
OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE May.	KEY		CLASS	START U.T. H M	MAXIMUM U.T. H M	DURATION MINUTES	PEAK FLUX	MEAN FLUX
25	21	GRF	SimpIIIA GRF	16 40	17 30	140	5.2	2.4
	20	GRF	SimpIII GRF	17 00	17 05	12	2.0	1.5*
	27A	RF	Rise & Fall A	19 57	Indet.	153	2.2	2.0
	24	R	Rise	19 57	20 00	3	2.2	1.1
	3	S	Simple II	19 57	19 58.2	3	17.6	6.0
	24P	R	Post Rise	20 00	-- --	125	2.2	---
	1	S	Simple I	21 29	21 30.5	3	6.4	2.8
	29	PBI	P.B. Increase	21 32	21 32	30	2.8	1.6
	26	FAL	Fall	22 05	22 30	25	-2.2	-1.1
26	46F	C	Complex F (-)	13 15	13 16.8	9	29.0	11.3**
	29	PBI	P.B. Increase	13 24	13 24	105	6.2	1.8**
	21	GRF	SimpIIIA GRF	17 57	20 40	275	6.8	3.4
	2	S/F	Simple IF	17 57.3	17 59	4	4.2	1.8
27	8	S	Spike	15 52.7	15 52.9	0.3	4.2	---
	20	GRF	SimpIII GRF	22 18	22 20	25	2.0	1.0
28	20	GRF	SimpIII GRF	17 13	17 25	30	1.8	0.9
	8	S	Spike	19 21.2	19 21.5	0.5	3.0	---
	8	S	Spike	22 23.2	22 23.5	0.5	3.0	---
	2	S/F	Simple IF	22 28.2	22 29	1.5	2.6	1.6
29	8	S	Spike	00 13.9	00 14	0.8	2.2	1.1*
	20	GRF	SimpIII GRF	00 30	00 50	>80	3.0	---*
	21	GRF	SimpIIIA GRF	17 43	17 44	15	2.0	1.0
	8	S	Spike	17 43.9	17 44	0.2	1.8	---
	20	GRF	SimpIII GRF	18 40	19 05	140	3.4	1.7
30	20	GRF	SimpIII GRF	19 55	20 00	40	2.8	1.4
31	21	GRF	SimpIIIA GRF	11 30	11 55	65	2.2	1.4**
	4	S/F	Simple IIF	11 36	11 40.5	11	26.0	11.8**

* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

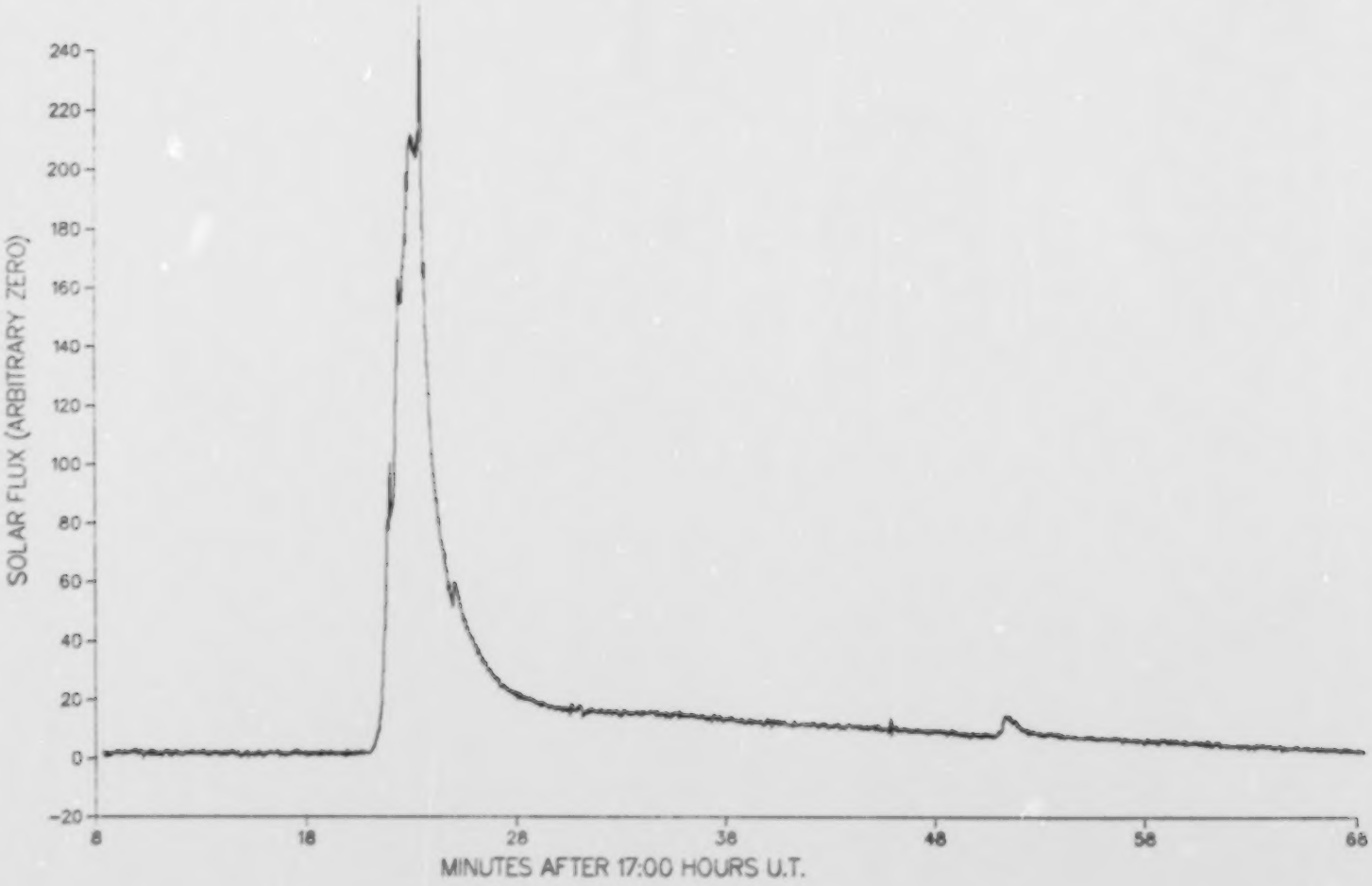
MAY 05, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



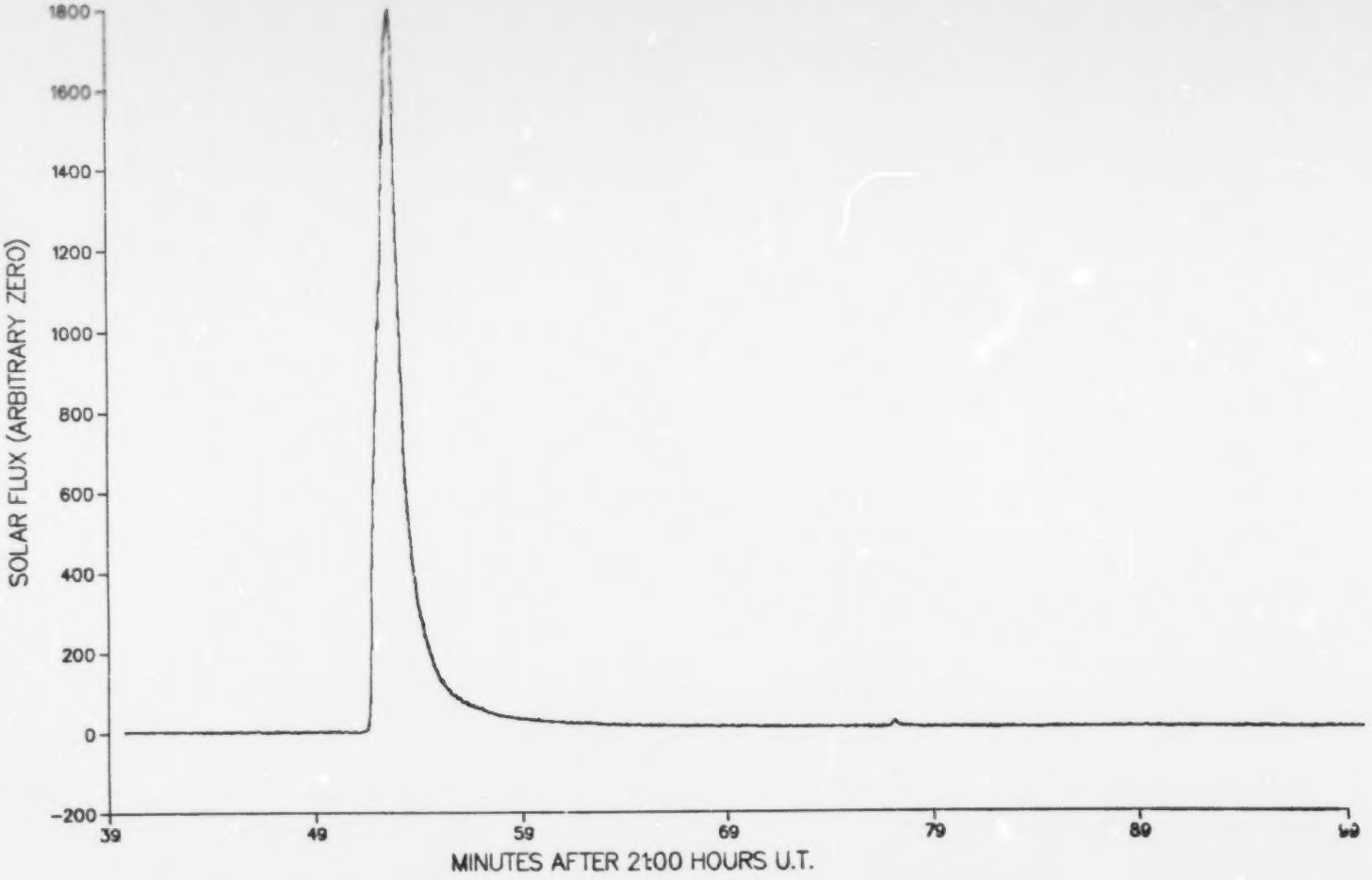
MAY 10, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



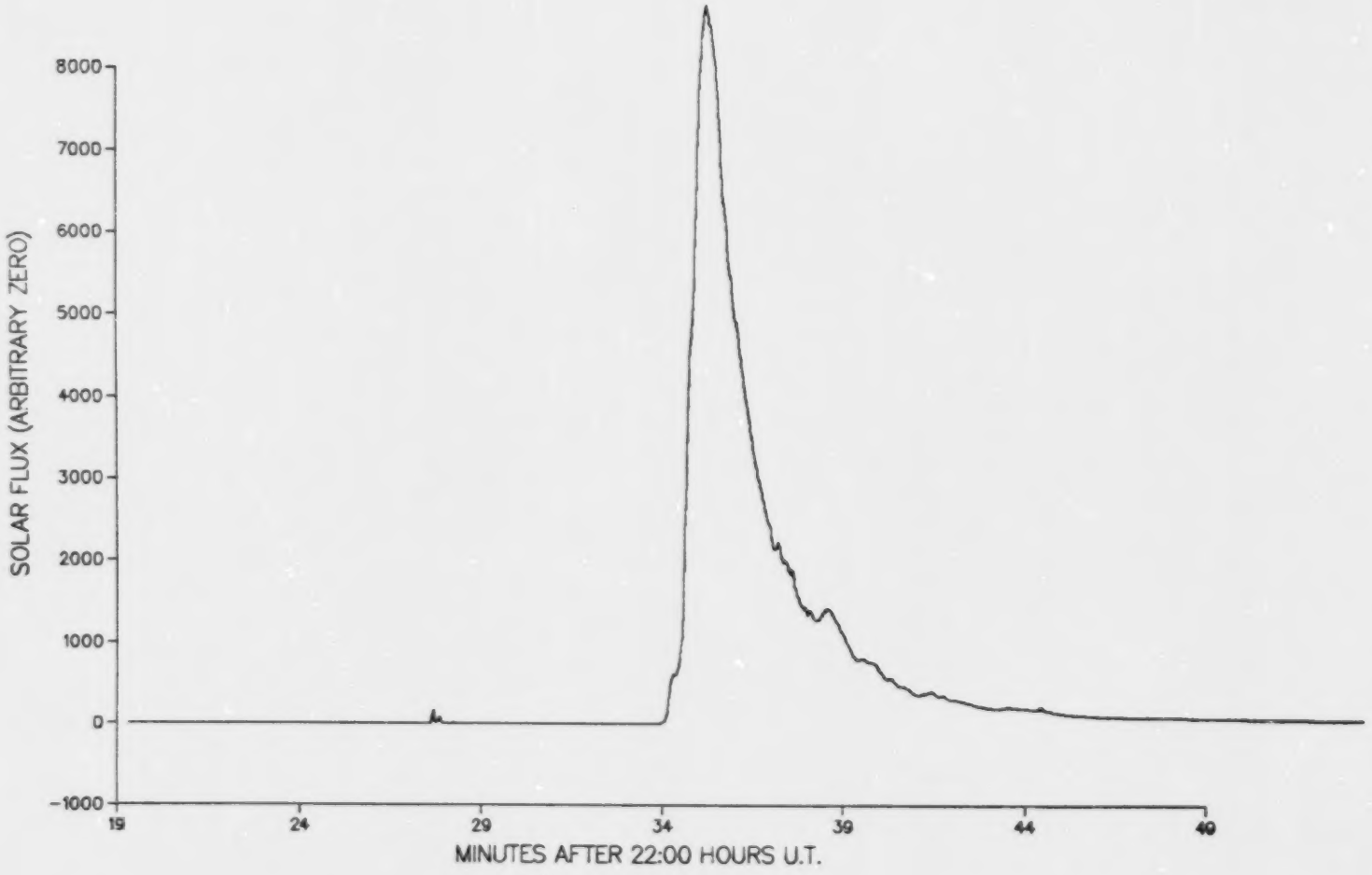
MAY 19, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



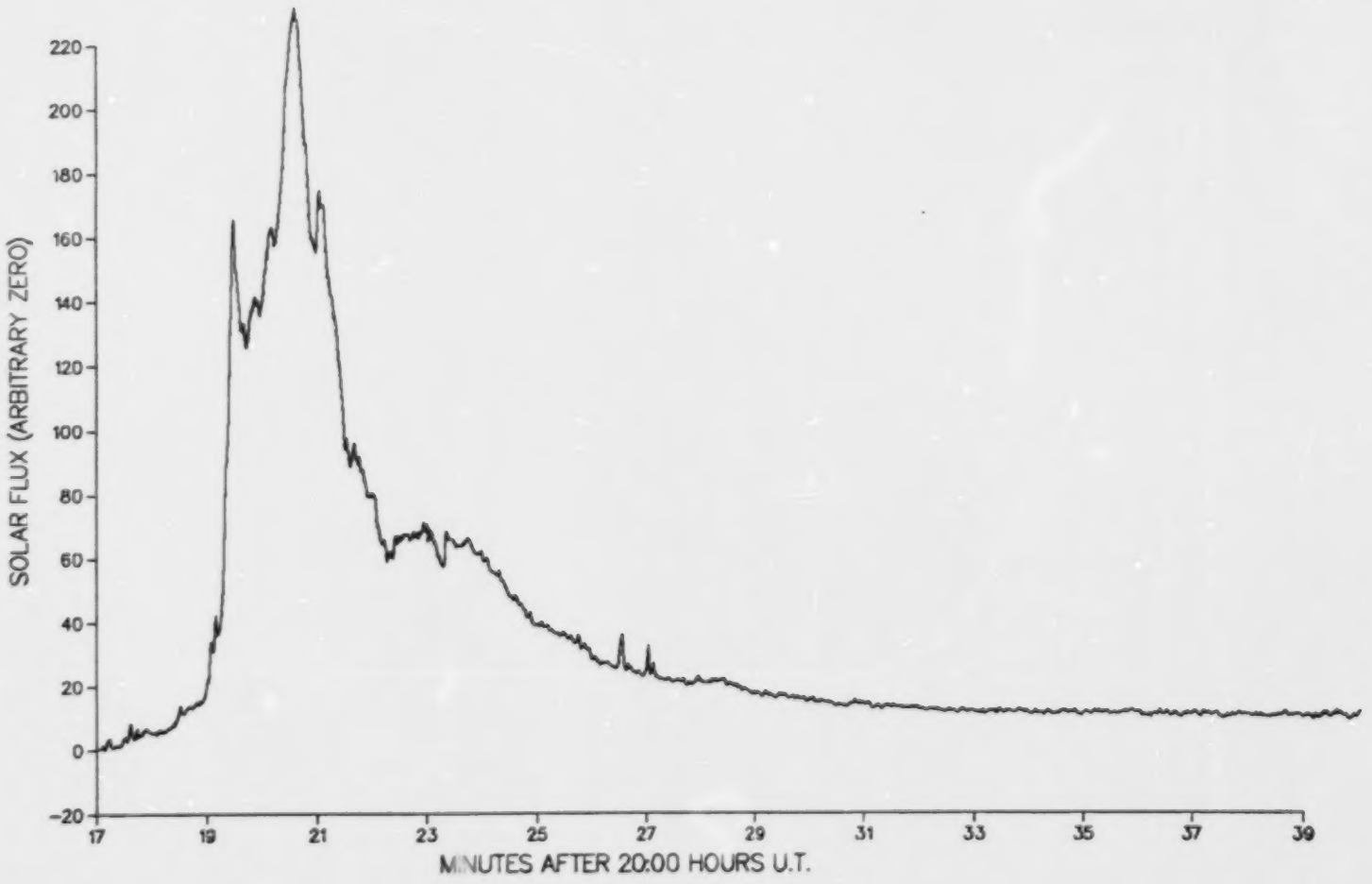
MAY 20, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



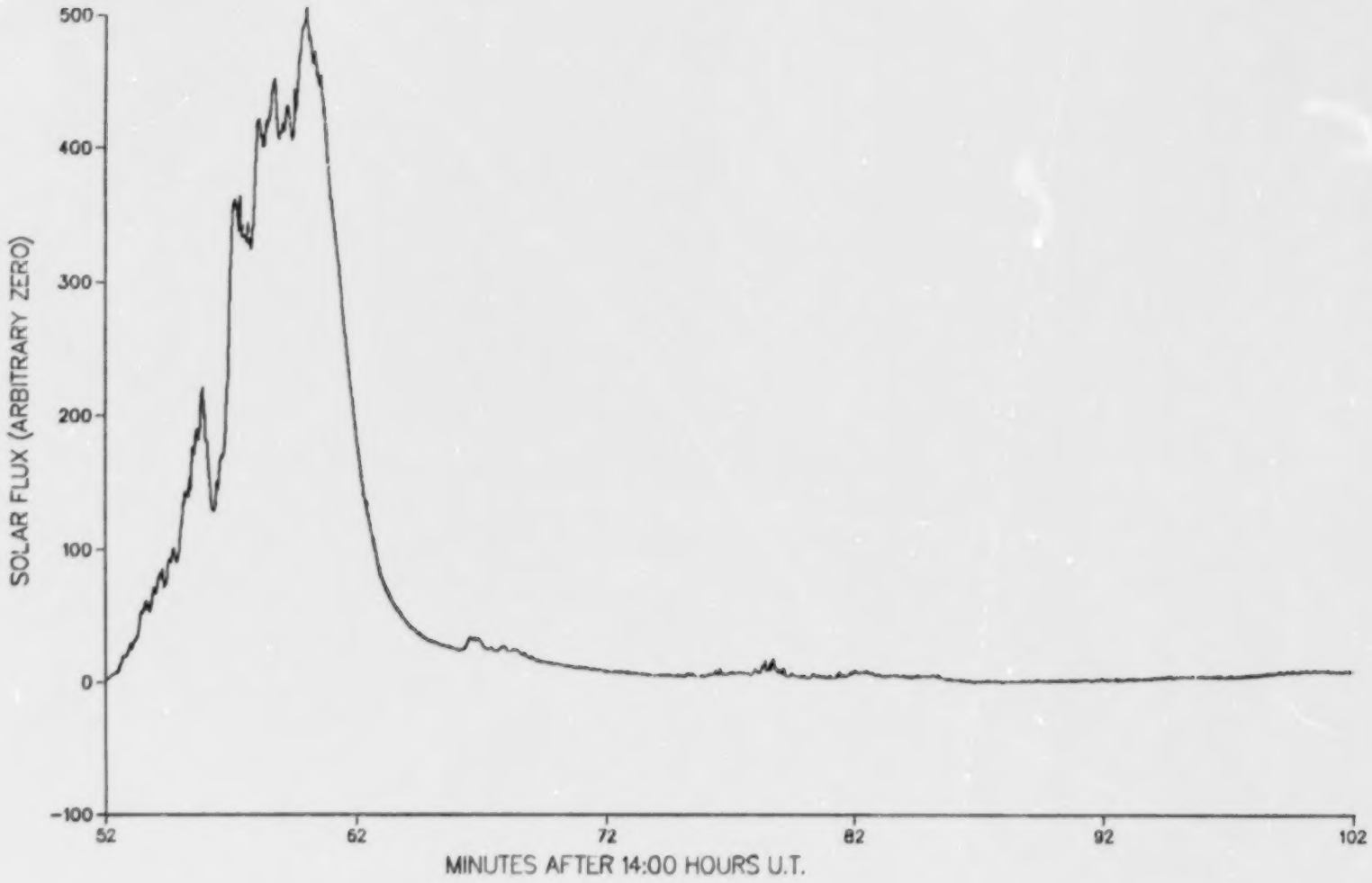
MAY 21, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



MAY 22, 1984

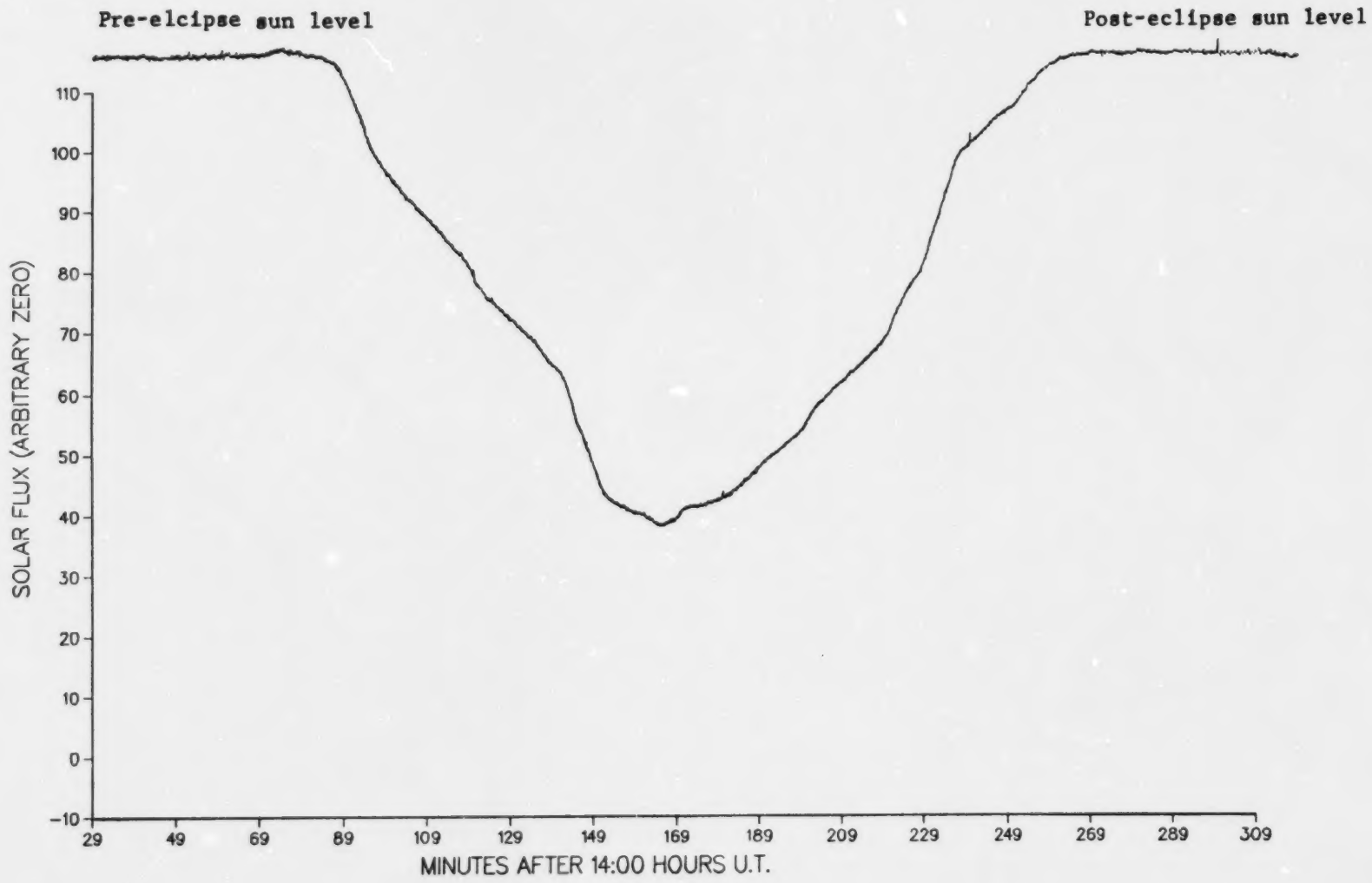
SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



PARTIAL ECLIPLE

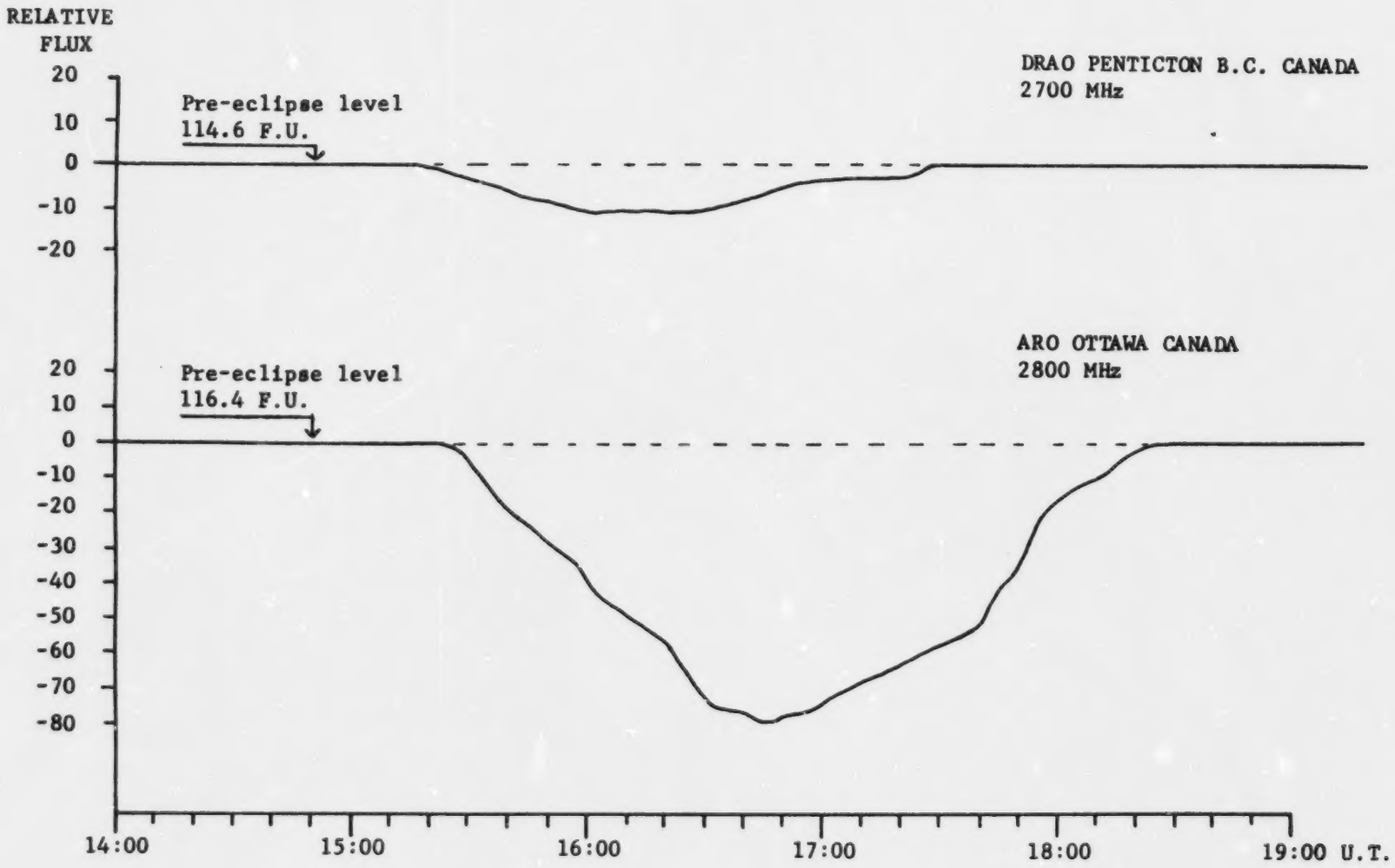
MAY 30, 1984

SELECTED 2800 MHz SOLAR NOISE BURST
A.R.O. OTTAWA, ONT.
CANADA



PARTIAL ECLIPSE

May 30, 1984

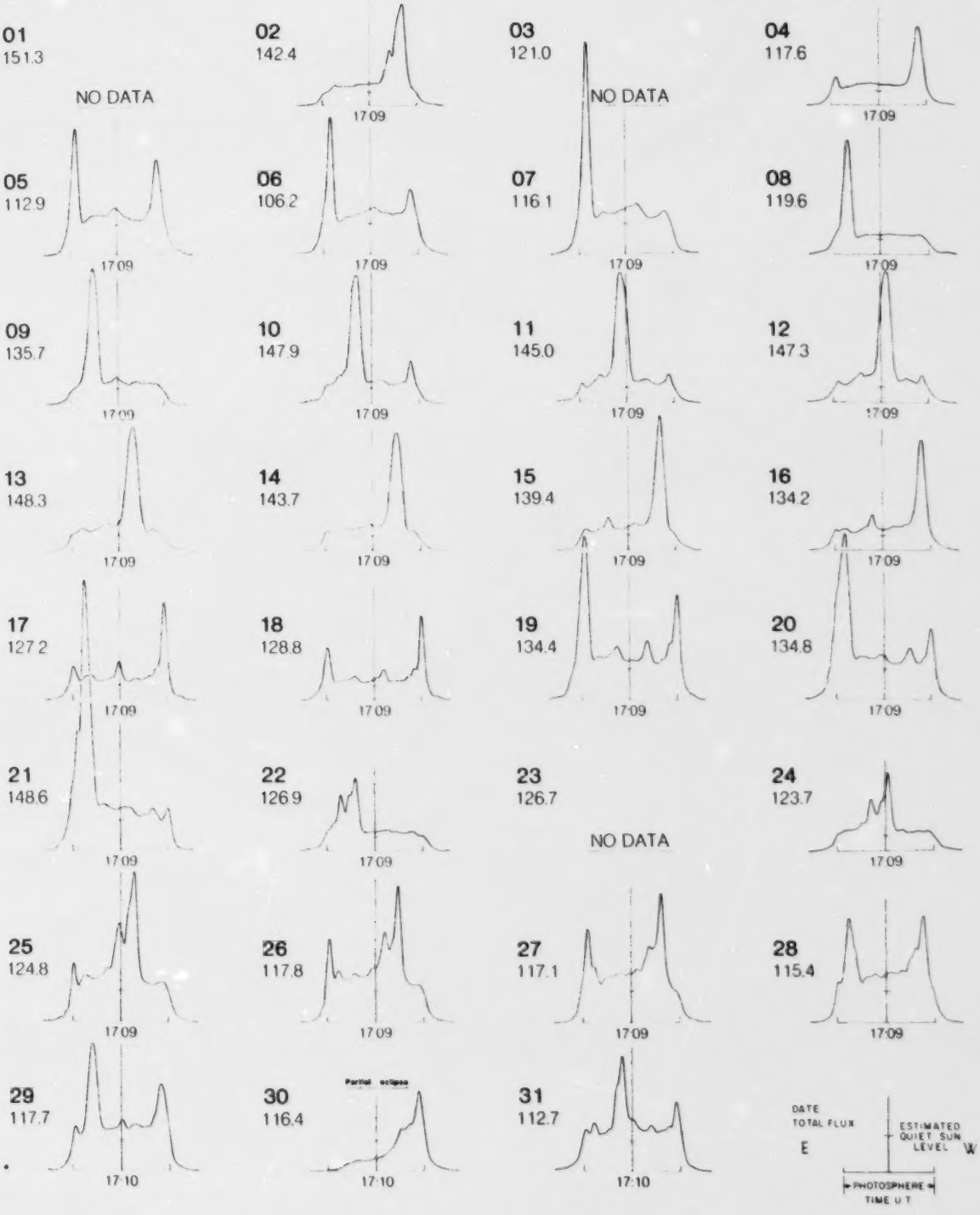


EAST-WEST SOLAR SCANS

MAY 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



June 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Jun.	Series C	Series C	Series D
1	112.8	116.1	104.5
2	108.2	111.3	100.2
3	106.5	109.6	98.6
4	103.8	106.8	96.1
5	101.6	104.6	94.1
6	96.0	98.9	89.0
7	94.5	97.3	87.6
8	91.8	94.6	85.1
9	90.8	93.6	84.2
10	89.5	92.3	83.1
11	90.4	93.2	83.9
12	90.2	93.0	83.7
13	95.5	98.6	88.7
14	106.8	110.2	99.2
15	112.9#	116.5#	104.8#
16	106.9	110.3	99.3
17	106.1#	109.5#	98.5#
18	105.4	108.9	98.0
19	104.4	107.8	97.0
20	103.2	106.6	95.9
21	100.1#	103.4#	93.1#
22	101.3	104.6	94.1
23	101.9	105.3	94.8
24	100.3	103.6	93.2
25	101.3	104.6	94.1
26	96.8	100.1	90.1
27	98.2	101.5	91.3
28	96.2	99.5	89.5
29	97.0	100.3	90.3
30	97.8	101.1	91.0
Mean:	100.3	103.5	93.1

Corrected for burst.

June 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Jun.	14:00	17:00	20:00	19:35
1	112.2	112.8	111.8	110.1
2	107.3#	108.2	108.2	-----
3	107.9	106.5	106.8	-----
4	104.2	103.8	103.1	102.8
5	101.1	101.6	101.3#	100.7
6	96.4	96.0	95.8	94.1
7	94.4	94.5	94.6#	93.5#
8	92.2	91.8	91.5	89.1
9	91.1	90.8	90.6	----
10	89.2	89.5	90.1	----
11	98.9	90.4	90.2	89.0
12	89.5	90.2	90.4#	89.0#
13	93.8	95.5	96.3	95.3
14	101.1	106.8	109.2	108.1#
15	111.6	112.9#	112.2	110.6
16	106.9	106.9	106.1	-----
17	106.1	106.1#	107.1	-----
18	105.4#	105.4	107.1	105.9
19	104.1	104.4	103.4	101.8
20	102.9	103.2	103.2#	102.2#
21	101.5#	100.1#	99.4#	98.3#
22	99.5	101.3	100.3	98.7
23	99.7	101.9	102.6	----
24	98.9	100.3	100.4	----
25	98.9	101.3	100.0	99.4
26	97.2	96.8	96.8	95.5
27	97.7	98.2	97.6	97.4
28	95.4	96.2	95.4	94.2
29	95.7	97.0	96.9	96.0
30	97.3#	97.8	97.3	----
Mean:	99.6	100.3	100.2	98.7

Corrected for burst.

June 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Jun.			H M	H M	MINUTES		
1	20	GRF SimpIII GRF	P10 40	10 55	>70	5.0	---**
	4	S/F Simple IIF	12 05.2	12 06	3	36.0	9.0**
	4	S/F Simple IIF	17 52	17 52.8	1.3	110.0	12.0
	29	PBI P.B. Increase	17 53.3	17 53.3	12	1.6	0.8
	20	GRF SimpIII GRF	23 00	23 06	60	2.4	1.2*
2	21	GRF SimpIIIA GRF	12 00	13 03	240	7.0	2.4**
	4	S/F Simple IIF	12 51	12 53.2	5	11.0	2.8**
3	3	S Simple II	01 44	01 48.3	>5	26.0	---*
	20	GRF SimpIII GRF	18 05	18 35	85	2.4	1.2
5	20	GRF SimpIII GRF	19 30	20 15	130	2.2	1.1
7	21	GRF SimpIIIA GRF	14 45	15 05	60	2.6	1.3
	2	S/F Simple IF	14 47	14 49	4	2.0	0.8
	20	GRF SimpIII GRF	18 35	19 40	130	2.0	1.0
8	3	S Simple II	23 09.5	23 10.3	1.5	37.0	14.0*
	30	PBI P.B. Incr. A	23 11	23 11	150	3.6	1.4*
	1	S Simple I	23 12.5	23 13	1.2	1.6	0.8*
12	20	GRF SimpIII GRF	19 20	22 55	>390	11.2	---
14	240A	R Rise Only A	14 50	16 30	100	5.8	2.9
	3	S Simple II	14 52	14 52.2	1.5	18.6	5.0
	29	PBI P.B. Increase	14 53.5	14 53.5	7	1.4	0.9
	240	R Rise Only	17 00	17 10	10	2.4	1.2
	20	GRF SimpIII GRF	17 25	17 55	55	2.2	1.1
	20	GRF SimpIII GRF	18 40	19 20	80	1.8	1.0
	22	GRF SimpIIIF GRF	20 05	20 15	20	2.2	1.1
	21	GRF SimpIIIA GRF	21 10	21 55	230	7.6	3.8
	1	S Simple I	21 44	21 45	2	5.6	2.0
15	20	GRF SimpIII GRF	12 40	12 55	50	1.8	0.9**
	20	GRF SimpIII GRF	14 30	14 35	25	2.0	1.0
	20	GRF SimpIII GRF	16 50	17 00	30	1.4	0.7
	20	GRF SimpIII GRF	20 35	20 40	30	1.8	1.2
16	20	GRF SimpIII GRF	00 00	00 15	60	2.0	1.3*
	260	FAL Fall Only	12 10	12 50	40	-2.8	-1.4**
17	22	GRF SimpIIIF GRF	15 30	17 30	250	2.8	1.4
18	20	GRF SimpIII GRF	11 30	12 05	250	2.8	1.8**
	240	R Rise Only	17 05	17 30	25	1.8	0.9
	21	GRF SimpIIIA GRF	18 30	18 55	85	2.2	1.1

* Only observed at DRAO, Penticton.
**Only observed at AFO, Lake Traverse.

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS		START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Jun.				H M	H M	MINUTES		
18	1	S	Simple I	18 51	18 51.1	1	1.0	0.5
19	1	S	Simple I	01 11	01 12.2	4	2.6	0.9*
20	32	ABS	Absorption	18 48	19 00	65	-4.4	-2.3
	20	GRF	SimpIII GRF	19 55	21 00	210	2.2	1.1
21	20	GRF	SimpIII GRF	13 15	14 05	195	9.6	4.0
	32	ABS	Absorption	16 35	17 00	65	-1.8	-0.9
	20	GRF	SimpIII GRF	19 10	20 35	175	2.2	---
23	21	GRF	SimpIIIA GRF	19 10	19 35	50	2.0	1.0
	1	S	Simple I	19 15.5	19 16.2	1	1.2	0.6
	2	S/F	Simple IF	19 21	19 22.2	4	2.2	0.8
24	240	R	Rise Only	00 10	00 50	40	1.8	0.9*
	20	GRF	SimpIII GRF	23 00	23 20	60	2.2	1.1*
25	21	GRF	SimpIIIA GRF	20 54	21 00	40	3.0	1.4
	1	S	Simple I	20 55	20 56	2	8.6	4.2
27	2	S/F	Simple IF	18 07	18 08.3	4	4.6	1.1
	1	S	Simple I	22 20	22 20	2	2.2	0.6
28	46F	C	Complex F (-)	16 16	16 17.3	5	7.2	2.0
	1	S	Simple I	18 31.8	18 32	1.2	1.0	0.5
30	2	S/F	Simple IF	11 08	11 08.3	1.5	9.8	2.4**
	20	GRF	SimpIII GRF	13 00	13 13	180	3.8	1.8**
	1	S	Simple I	18 35.5	18 36.2	2.5	1.2	0.5

* Only observed at DRAO, Penticton.
**Only observed at APO, Lake Traverse.

EAST-WEST SOLAR SCANS

JUNE 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution

July 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Jul.	Series C	Series C	Series D
1	98.4	101.7	91.5
2	100.2	103.6	93.2
3	101.4	104.8	94.3
4	102.2	105.7	95.1
5	101.0#	104.4#	94.0#
6	97.0	100.3	90.3
7	96.8	100.1	90.1
8	97.8	101.1	91.0
9	101.1	104.5	94.0
10	98.0	101.3	91.2
11	93.6	96.8	87.1
12	91.7	94.7	85.2
13	89.6	92.6	83.3
14	89.3#	92.2#	83.0#
15	89.3	92.2	83.0
16	87.2	90.1	81.1
17	84.5	87.3	78.6
18	82.8	85.5	76.9
19	82.0	84.7	76.2
20	82.1	84.8	76.3
21	84.0	86.7	78.0
22	83.6	86.3	77.7
23	84.6	87.3	78.6
24	84.1	86.8	78.1
25	83.2	85.9	77.3
26	80.8	83.4	75.1
27	80.5	83.0	74.7
28	80.0	82.5	74.3
29	79.8	82.3	74.1
30	79.7	82.2	74.0
31	80.6	83.0	74.7
Mean:	89.3	92.2	83.0

Corrected for burst.

July 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-APO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - APO			PENTICTON - DRAO
Jul.	14:00	17:00	20:00	19:35
1	97.3	98.4	98.4	-----
2	98.6	100.2	101.5	-----
3	99.7	101.4	101.6	100.3
4	102.0	102.2	101.8	100.4
5	99.9	101.0#	101.1#	99.9
6	96.6	97.0	97.0#	96.6#
7	96.6#	96.8	96.0	----
8	97.1	97.8	96.6	----
9	99.7	101.1	101.3	100.2
10	97.6	98.0	98.2	96.9
11	93.7	93.6	93.4	92.7
12	91.6	91.7	92.2	91.1
13	89.6	89.6	89.5	88.2
14	88.8	89.3#	89.8	----
15	88.7	89.3	88.2	----
16	85.2	87.2	85.8	83.9
17	84.7	84.5	84.1#	82.9
18	82.3#	82.8	82.3	80.4
19	80.8	82.0	80.0	79.6
20	82.0	82.1	82.5	79.7
21	84.6	84.0	84.1	----
22	82.9	83.6	83.0#	----
23	84.2	84.6	84.0	82.9
24	83.6	84.1	85.6	83.4
25	83.2	83.2	83.0	81.9
26	80.3	80.8	81.2	78.9
27	80.1	80.5	80.5	78.5
28	80.4	80.0	80.1	----
29	79.6	79.8	79.5	----
30	79.0	79.7	79.0	76.8
31	79.4	80.6	80.8	78.9
Mean:	90.7	89.3	89.1	87.3

Corrected for burst.

July 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Jul.			H M	H M	MINUTES		
2	22	GBF	SimpIIIF GBF	18 00	19 05	100	2.2	0.9
5	21	GBF	SimpIIIA GBF	15 05	15 20	235	4.8	2.2
	2	S/F	Simple IF	15 06.5	15 07.2	3.5	9.8	3.6
	20	GBF	SimpIII GBF	19 30	20 30	170	1.8	1.2
6	22	GBF	SimpIIIF GBF	19 00	19 35	100	3.2	1.2
7	20	GBF	SimpIII GBF	13 25	13 50	80	1.6	0.8**
	20	GBF	SimpIII GBF	14 50	15 20	70	1.6	0.8
	20	GBF	SimpIII GBF	23 55	00 15	>120	2.8	---*
9	20	GBF	SimpIII GBF	15 50	16 00	20	1.6	1.0
	20	GBF	SimpIII GBF	22 40	23 30	>195	4.8	---*
10	20	GBF	SimpIII GBF	21 00	21 05	25	1.8	0.9
11	27	BF	Rise & Fall	12 40	Indet.	200	2.0	1.5**
	24	B	Rise	12 40	13 05	25	2.0	1.0**
	24P	B	Post Rise	13 05	-- --	95	2.0	---**
	26	FAL	Fall	14 40	16 00	80	-2.0	-1.0
14	20	GBF	SimpIII GBF	15 05	16 05	195	4.2	2.0
17	46F	C	Complex F (-)	00 55	00 58.7	16	36.0	17.5*
	29	PFI	P.B. Increase	01 11	01 11	>40	3.4	---*
	20	GBF	SimpIII GBF	19 40	19 50	75	1.8	1.0
18	20	GBF	SimpIII GBF	11 50	12 35	250	2.2	1.1**
30	20	GBF	SimpIII GBF	17 30	17 50	35	1.8	0.9

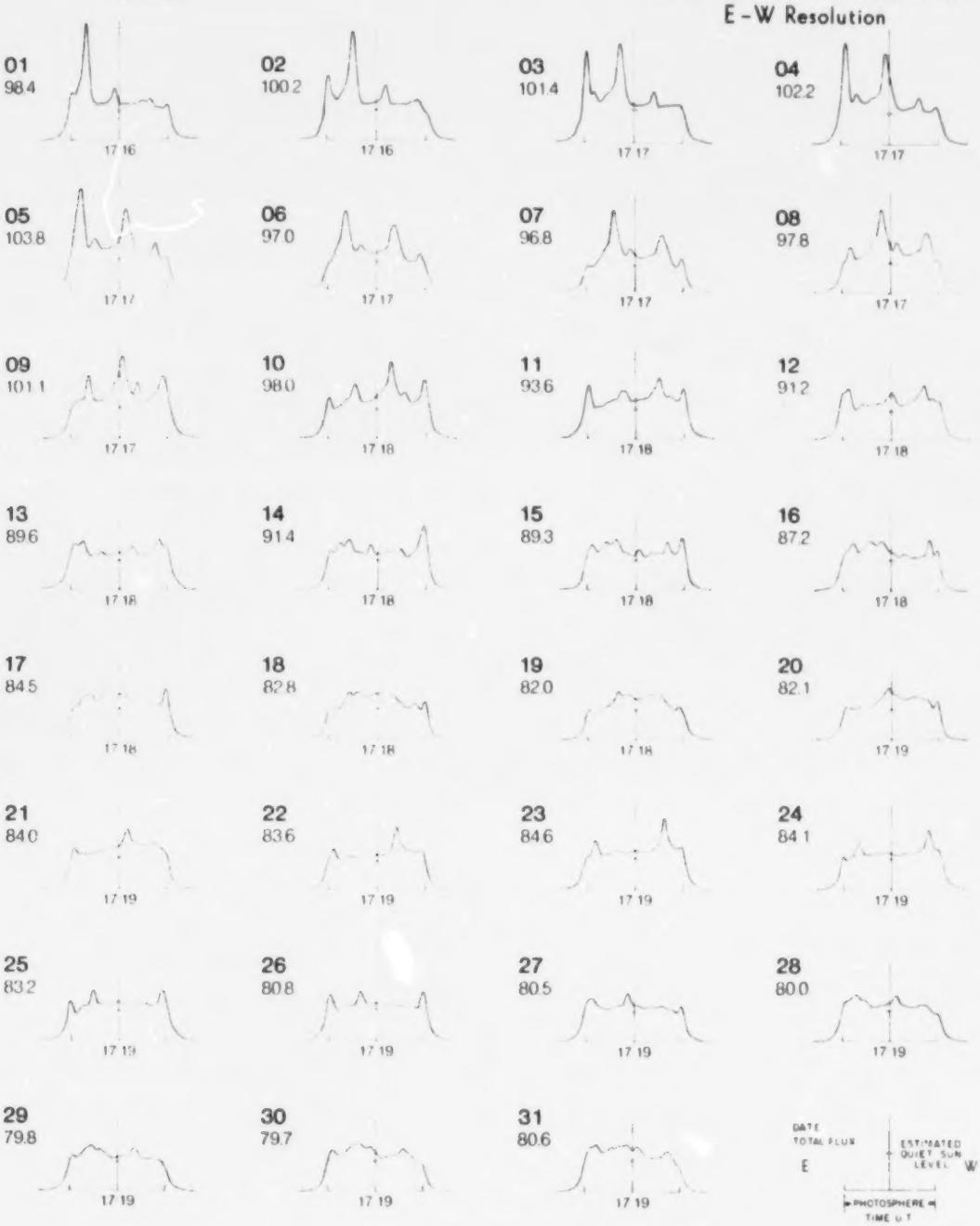
* Only observed at DRAO, Penticton.
**Only observed at ARO, Lake Traverse.

EAST-WEST SOLAR SCANS

JULY 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



August 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Aug.	Series C	Series C	Series D
1	81.6	84.0	75.6
2	83.8	86.3	77.7
3	85.8	88.4	79.6
4	83.3	85.7	77.1
5	83.3	85.7	77.1
6	87.4	89.9	80.9
7	89.9	92.4	83.2
8	91.4	94.0	84.6
9	91.8	94.4	85.0
10	92.9	95.4	85.9
11	88.4	90.8	81.7
12	85.7	88.0	79.2
13	84.3	86.5	77.8
14	81.9	84.0	75.6
15	80.5	82.6	74.3
16	81.1	83.1	74.8
17	79.0	81.0	72.9
18	77.2	79.1	71.2
19	74.4	76.2	68.6
20	73.8	75.6	68.0
21	75.5	77.2	69.5
22	74.0	75.7	68.1
23	74.4	76.0	68.4
24	79.8	81.6	73.4
25	81.2	83.0	74.7
26	85.9	87.7	78.9
27	88.5	90.4	81.4
28	86.9	88.6	79.7
29	88.5	90.3	81.3
30	90.1	91.8	92.6
31	91.4#	93.1#	83.8#
Mean:	83.7	85.8	77.2

Corrected for burst.

August 1984

SERIPS C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Aug.	14:00	17:00	20:00	19:35
1	82.1	81.6	82.2	79.8
2	83.5	83.8	84.9	82.8
3	84.8	85.8	85.0	83.2
4	83.0	83.3	83.3	----
5	83.4	83.3	83.7	----
6	86.7	87.4	87.3	----
7	90.1	89.9	89.9	87.9
8	91.3	91.4	92.9	89.9
9	92.0	91.8	92.8#	91.4
10	94.2	92.9	93.1	90.6
11	88.3	88.4	88.3	----
12	85.2	85.7	86.2	----
13	84.5	84.3	84.3	83.9
14	83.7	81.9	81.9a	81.3
15	80.9	80.5	81.1	78.9
16	81.6	81.1	80.7	78.6
17	79.9	79.0	78.1	76.7
18	76.4	77.2	77.7	----
19	74.9	74.4	74.6	----
20	74.0	73.8	74.1	72.8
21	75.3	75.5	75.4	72.8
22	74.7	74.0	74.8	72.5
23	73.9	74.4	74.6	73.0
24	78.1	79.8	79.5	78.0
25	79.2	81.2	83.0	----
26	84.8	85.9	85.6	----
27	87.7	88.5	89.8#	86.9#
28	86.7	86.9	87.6#	84.6
29	88.7	88.5	88.8	86.8
30	89.3	90.1	91.4	88.7
31	91.1#	91.4#	91.4	89.1
Mean:	83.5	83.7	84.0	82.3

Corrected for burst.
a) Extrapolated

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Aug.			H M	H M	MINUTES		
3	21	GRF	SimpIIIA GRF	22 10	22 15	60	1.2	0.6
	1	S	Simple I	22 10	22 11	2	1.6	0.8
6	1	S	Simple I	00 46.5	00 47.7	1.5	1.6	1.2*
7	240	R	Rise Only	21 35	22 15	40	1.8	0.9
8	32	ABS	Absorption	14 55	15 20	55	-1.8	-0.9
9	1	S	Simple I	19 55	19 57	8	1.2	0.6
13	240	R	Rise Only	20 35	21 10	35	2.2	1.1
14	21	GRF	SimpIIIA GRF	18 15	18 35	75	1.6	0.8
	4	S/F	Simple IIF	18 18	18 18.5	1	11.2	3.0
	240A	R	Rise Only A	23 55	23 58	3	1.4	0.7*
	1	S	Simple I	23 55.5	23 56	1.5	1.6	0.6*
18	21	GRF	SimpIIIA GRF	22 40	23 20	>190	5.6	---*
	1	S	Simple I	23 00	23 00.5	2	8.4	---*
22	240	R	Rise Only	21 25	22 00	35	1.4	0.7
24	21	GRF	SimpIIIA GRF	14 35	14 50	45	2.0	1.0
	1	S	Simple I	14 43	14 44.5	6	4.6	2.0
	4	S/F	Simple IIF	14 51	14 52	3	10.6	4.8
	240	R	Rise Only	16 20	16 55	30	1.6	0.8
	4	S/F	Simple IIF	17 38.5	17 39.1	1	11.2	3.8
	29	PBI	P.B. Increase	17 39.5	17 39.5	25	1.8	1.0
	21	GRF	SimpIIIA GRF	20 50	21 05	50	4.6	2.0
	2	S/F	Simple IF	21 00	21 02	4	3.6	1.8
26	20	GRF	SimpIII GRF	22 05	22 30	115	2.2	1.1
27	20	GRF	SimpIII GRF	19 05	19 25	105	1.8	1.0
28	1	S	Simple I	15 21	15 23	7	1.0	0.5
	1	S	Simple I	19 57	19 59	8	0.8	---
	20	GRF	SimpIII GRF	21 40	22 00	50	1.6	1.0
29	20	GRF	SimpIII GRF	11 35	12 35	145	2.0	1.0**
	240	R	Rise Only	22 30	23 05	35	1.6	0.8*
30	20	GRF	SimpIII GRF	15 05	15 10	15	1.6	0.8
	20	GRF	SimpIII GRF	15 35	15 45	25	1.0	0.5
	20	GRF	SimpIII GRF	17 40	17 50	20	1.0	0.5
	20	GRF	SimpIII GRF	19 35	20 00	85	1.6	0.8*
	21	GRF	SimpIIIA GRF	23 20	23 30	30	1.6	0.8*
	1	S	Simple I	23 24	23 25	2	1.6	0.8*
31	22	GRF	SimpIIIF GRF	13 40	15 20	145	1.8	---**

* Only observed at DPAO, Penticton.
**Only observed at ARO, Lake Traverse.

August 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

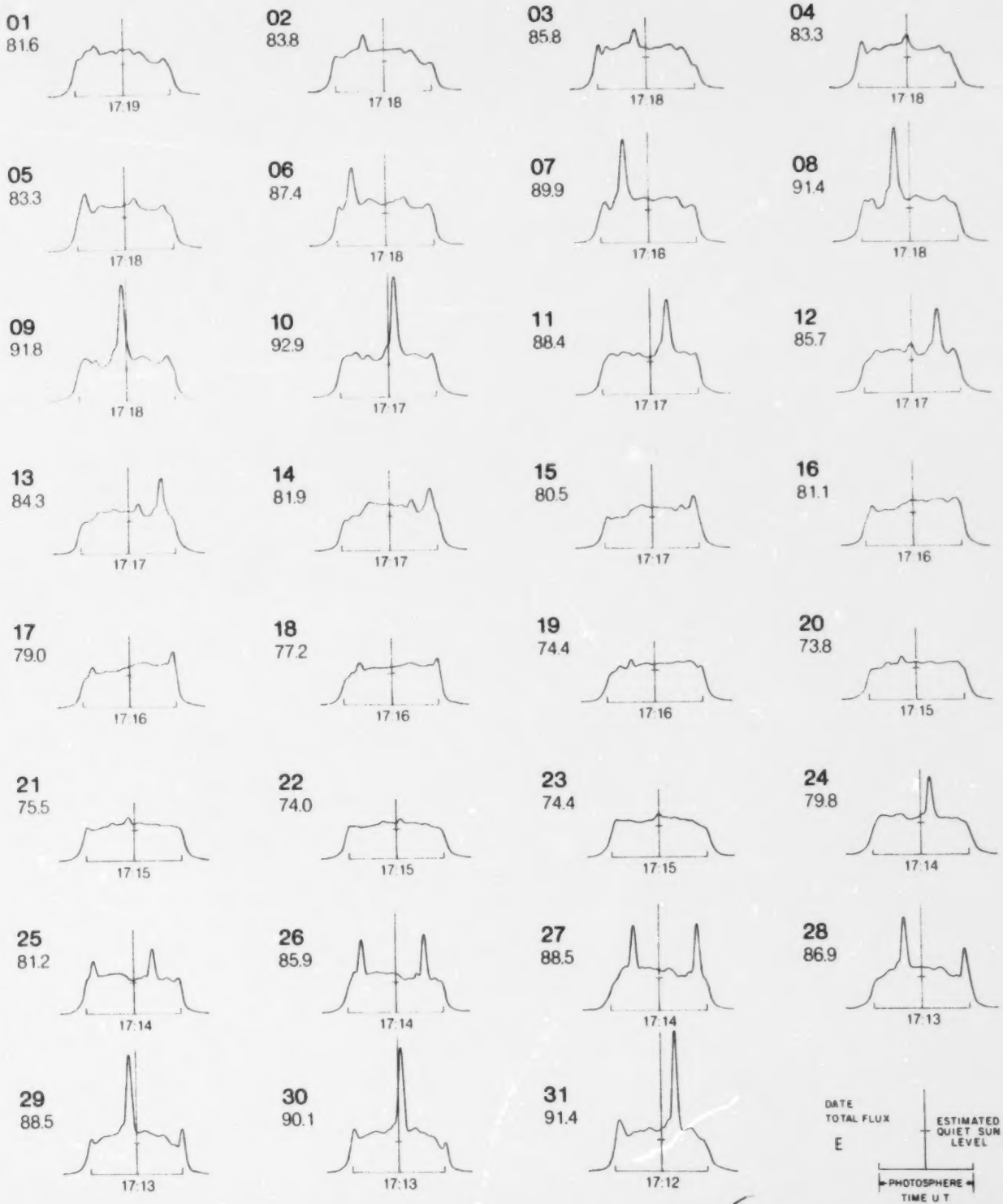
DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Aug.			H M	H M	MINUTES		
31	20	GRF SimpIII GRF	16 55	17 00	35	1.4	0.7

EAST-WEST SOLAR SCANS

AUGUST 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



September 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Sep.	Series C	Series C	Series D
1	92.4	94.1	84.7
2	91.6	93.2	83.9
3	92.9	94.5	85.0
4	90.4	91.9	82.7
5	88.4	89.8	80.8
6	84.5	85.9	77.3
7	83.9	85.2	76.7
8	82.2	83.4	75.1
9	79.5	80.6	72.5
10	78.0	79.1	71.2
11	76.8	77.8	70.0
12	75.5	76.5	68.8
13	74.0	75.0	67.5
14	73.5	74.5	67.0
15	72.5	73.3	66.0
16	72.6	73.4	66.1
17	73.9	74.6	67.1
18	73.1	73.8	66.4
19	73.9	74.6	67.1
20	73.5	74.1	66.7
21	74.5	75.1	67.6
22	75.4	75.9	68.3
23	75.6	76.1	68.5
24	75.7	76.2	68.6
25	74.2	74.6	67.1
26	73.9	74.3	66.9
27	73.2	73.5	66.1
28	72.8	73.1	65.8
29	71.5	71.7	64.5
30	72.2	72.4	65.2
Mean:	78.1	78.9	71.0

September 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Sep.	14:00	17:00	20:00	19:35
1	92.3	92.4	91.9	----
2	91.0	91.6	91.8	----
3	93.2	92.9	93.0	----
4	90.9	90.4	91.4	88.8
5	88.5	88.4	88.1	85.9
6	84.1	84.5	84.2	82.8
7	83.9	83.9	83.5	81.7
8	81.8	82.2	81.6	----
9	79.7	79.5	79.7	----
10	78.3	78.0	78.0	76.6
11	76.9	76.8	76.9	75.2
12	75.1	75.5	75.1	73.7
13	74.5	74.0	74.2	73.2
14	73.8	73.5	73.2	71.0
15	72.7	72.5	72.6	----
16	72.6	72.6	72.9	----a
17	72.8	73.9	73.6	71.9
18	72.8	73.1	73.4	71.4
19	73.5	73.9	73.3	72.2
20	73.8	73.5	74.3	71.6
21	73.4	74.5	75.0	72.7
22	74.4	75.4	75.4	----
23	75.8	75.6	75.6	----
24	75.4	75.7	75.4	73.4
25	75.0	74.2	74.2	73.2
26	73.9	73.9	74.1	73.1
27	72.8	73.2	74.0	72.4
28	72.0	72.8	72.0	71.7
29	71.1	71.5	72.2	----
30	72.1	72.2	72.6	----
Mean:	77.9	78.1	78.1	75.4

a) No observation

September 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KFY		CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Sep.				H M	H M	MINUTES		
2	20	GRF	SimpIII GPF	19 10	19 25	35	1.4	0.7
4	20	GRF	SimpIII GRF	20 10	20 30	55	1.6	0.8
8	1	S	Simple I	13 10	13 10.2	5	2.4	0.8**

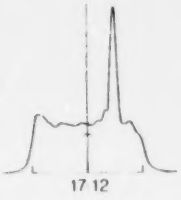
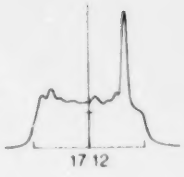
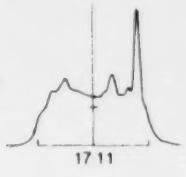
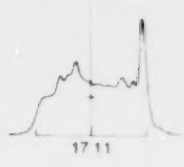
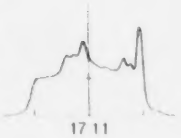
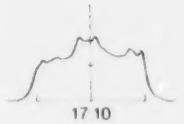
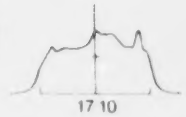
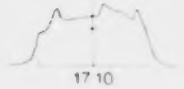
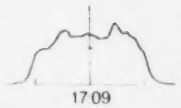
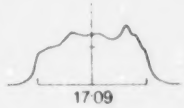
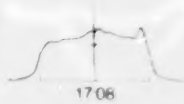
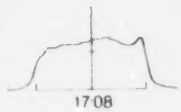
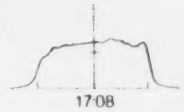
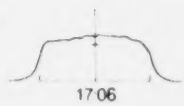
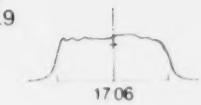
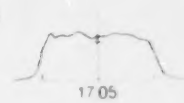
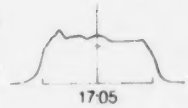
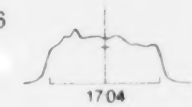
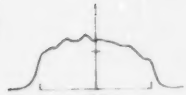
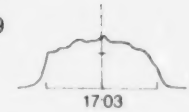
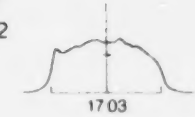
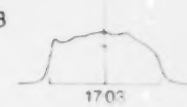
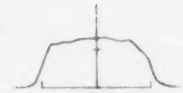
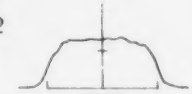
**Only observed at ARO, Lake Traverse.

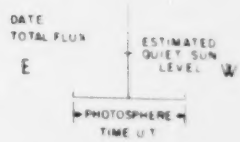
EAST-WEST SOLAR SCANS

SEPTEMBER 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution

01 92.4  17.12	**02** 91.6  17.12	**03** 92.9  17.11	**04** 90.4  17.11
05 88.4  17.11	**06** 84.5  17.10	**07** 83.9  17.10	**08** 82.2  17.10
09 79.5  17.09	**10** 78.0  17.09	**11** 76.8 17.09	**12** 75.5  17.08
13 74.0  17.08	**14** 73.5  17.08	**15** 72.5 17.07	**16** 72.6 17.07
17 73.9 17.07	**18** 73.1  17.06	**19** 73.9  17.06	**20** 73.5  17.05
21 74.5 17.05	**22** 75.4  17.05	**23** 75.6  17.04	**24** 75.7 17.04
25 74.2  17.04	**26** 73.9  17.03	**27** 73.2  17.03	**28** 72.8  17.03
29 71.5  17.02	**30** 72.2  17.02		



October 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Oct.	Series C	Series C	Series D
1	71.9	72.0	64.8
2	74.7	74.8	67.3
3	75.1	75.2	67.7
4	75.2	75.2	67.7
5	74.0	74.0	66.6
6	73.3	73.2	65.9
7	73.6	73.5	66.1
8	74.7	74.6	67.1
9	73.7	73.5	66.1
10	74.3	74.1	66.7
11	74.6	74.3	66.9
12	74.2	73.9	66.5
13	75.1	74.7	67.2
14	73.6	73.2	65.9
15	76.9	76.4	68.8
16	77.1	76.6	68.9
17	76.7	76.2	68.6
18	77.1	76.5	68.8
19	74.8	74.2	66.8
20	74.2	73.5	66.1
21	73.9	73.2	65.9
22	75.3	74.5	67.0
23	73.4	72.7	65.4
24	71.6	70.8	63.7
25	71.1	70.2	63.2
26	70.2	69.4	62.5
27	69.5	68.6	61.7
28	70.2	69.3	62.4
29	69.2	68.2	61.4
30	69.8	68.9	61.9
31	70.9	69.8	62.8
Mean:	73.5	73.1	65.8

October 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Oct.	14:00	17:00	20:00	19:35
1	72.0	71.9	73.6	71.4
2	73.9	74.7	75.0	73.0
3	75.4	75.1	76.3	74.3
4	74.9	75.2	74.9	73.5
5	74.1	74.0	74.6	72.9
6	73.3	73.3	74.0	----
7	73.3	73.6	74.1	----
8	74.2	74.7	75.3	----
9	74.4	73.7	73.0	72.4
10	74.3	74.3	74.4	72.5
11	74.2	74.6	74.6	72.8
12	73.6	74.2	74.2	73.5
13	75.0	75.1	74.6	----
14	73.9	73.6	74.6	----
15	76.1	76.9	77.9	75.0
16	77.5	77.1	77.5	74.8
17	76.2	76.7	77.4	75.0
18	76.8	77.1	76.9	75.3
19	76.6	74.8	74.7	73.4
20	74.2	74.2	74.8	----
21	73.8	73.9	74.1	----
22	75.1	75.3	75.2	72.2
23	73.4	73.4	74.0	71.7
24	70.7	71.6	73.1	70.7
25	69.9	71.1	71.4	69.2
26	70.5	70.2	70.4	68.4
27	69.6	69.5	69.4	----
28	70.2	70.2	70.8	----
29	69.2	69.2	69.9	67.8
30	69.4	69.8	70.7	68.5
31	71.2	70.9	71.0	69.3
Mean:	73.4	73.5	73.9	72.2

October 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KEY		CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Oct.				H M	H M	MINUTES		
6	20	GPF	SimpIII GPF	12 35	12 55	140	3.0	1.2**
10	"	S	Spike	12 41.6	12 41.7	0.4	2.2	1.1**
24	240	R	Rise Only	17 00	18 00	60	1.4	0.7

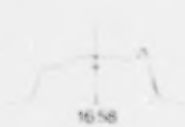
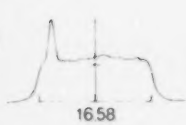
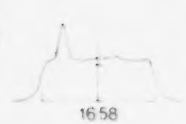
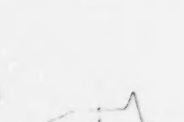
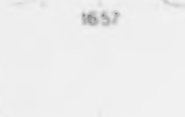
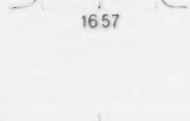
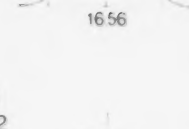
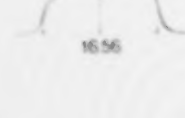
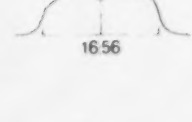
**Only observed at ARO, Lake Traverse.

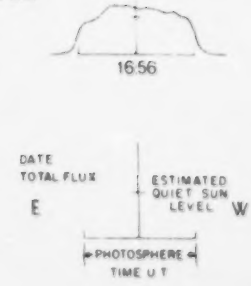
EAST-WEST SOLAR SCANS

OCTOBER 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution

01 71.9 17.02	**02** 74.7 17.01	**03** 75.1 17.01	**04** 75.2 17.01
05 74.0 17.00	**06** 73.3 17.00	**07** 73.6 17.00	**08** 74.7 17.00
09 73.7 16.59	**10** 74.3 16.59	**11** 74.6 16.59	**12** 74.2 16.59
13 75.1  16.58	**14** 73.6 16.58	**15** 76.9  16.58	**16** 77.1  16.58
17 76.7 16.57	**18** 77.1 16.57	**19** 74.8 16.57	**20** 74.2 16.57
21 73.9 16.57	**22** 75.3  16.57	**23** 73.4 16.57	**24** 71.6 16.56
25 71.1  16.56	**26** 70.2  16.56	**27** 69.5 16.56	**28** 70.2  16.56
29 69.2  16.56	**30** 69.8 16.56	**31** 70.9  16.56	



November 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Nov.	Series C	Series C	Series D
1	70.6	69.5	62.5
2	71.2	70.1	63.1
3	73.2	72.0	64.8
4	73.4	72.2	65.0
5	72.9	71.7	64.5
6	72.3	71.0	63.9
7	71.4	70.1	63.1
8	71.9	70.5	63.4
9	74.1	72.7	65.4
10	77.3	75.8	68.2
11	74.6	73.1	65.8
12	74.4	72.8	65.5
13	73.1	71.6	64.4
14	73.5	72.0	64.8
15	74.5	72.9	65.6
16	72.3	70.7	63.6
17	72.7	71.0	63.9
19	73.4	71.7	64.5
19	74.1	72.3	65.1
20	76.6	74.8	67.3
21	80.2	78.3	70.5
22	80.2	78.2	70.4
23	81.3	79.3	71.4
24	83.3	81.1	73.0
25	85.3	83.1	74.8
26	84.7	82.5	74.3
27	84.8#	82.5#	74.3#
28	83.3	81.1	73.0
29	79.2	77.1	69.4
30	78.6	76.4	68.8
Mean:	76.3	74.6	67.1

Corrected for burst.

November 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Nov.	14:00	17:00	20:00	19:35
1	70.1	70.6	70.1	68.7
2	71.1	71.2	71.2	69.8
3	71.9	73.2	73.6	----
4	74.0	73.4	74.0	----
5	73.0	72.9	72.5	70.3
6	72.3	72.3	72.2	70.5
7	70.9	71.4	71.5	69.6
8	71.8	71.9	72.6	70.4
9	73.9	74.1	74.5	72.3
10	76.8*	77.3	77.4*	----
11	75.1	74.6	74.3	----
12	73.9	74.4	74.8	----
13	73.2	73.1	73.6	71.8
14	73.5	73.5	74.2	71.5
15	74.3	74.5	74.0	72.2
16	73.2	72.3	71.1	70.5
17	72.0	72.7	72.7	----a
18	73.3	73.4	73.7	----
19	73.1	74.1	74.8	73.0
20	76.3	76.6	77.2	75.6
21	79.6	80.2	79.7	77.6
22	79.1	80.2	81.1	78.1
23	80.8	81.3	81.4	78.9
24	83.0	83.3	83.3	----
25	84.7	85.3	85.3	----
26	85.2	84.7	84.1*	80.9*
27	85.3	84.8*	85.1*	83.6*
28	82.6	83.3	82.7	79.7
29	80.1	79.2	79.0	77.1
30	77.9	78.6	79.3	77.4
Mean:	76.1	76.3	76.4	74.3

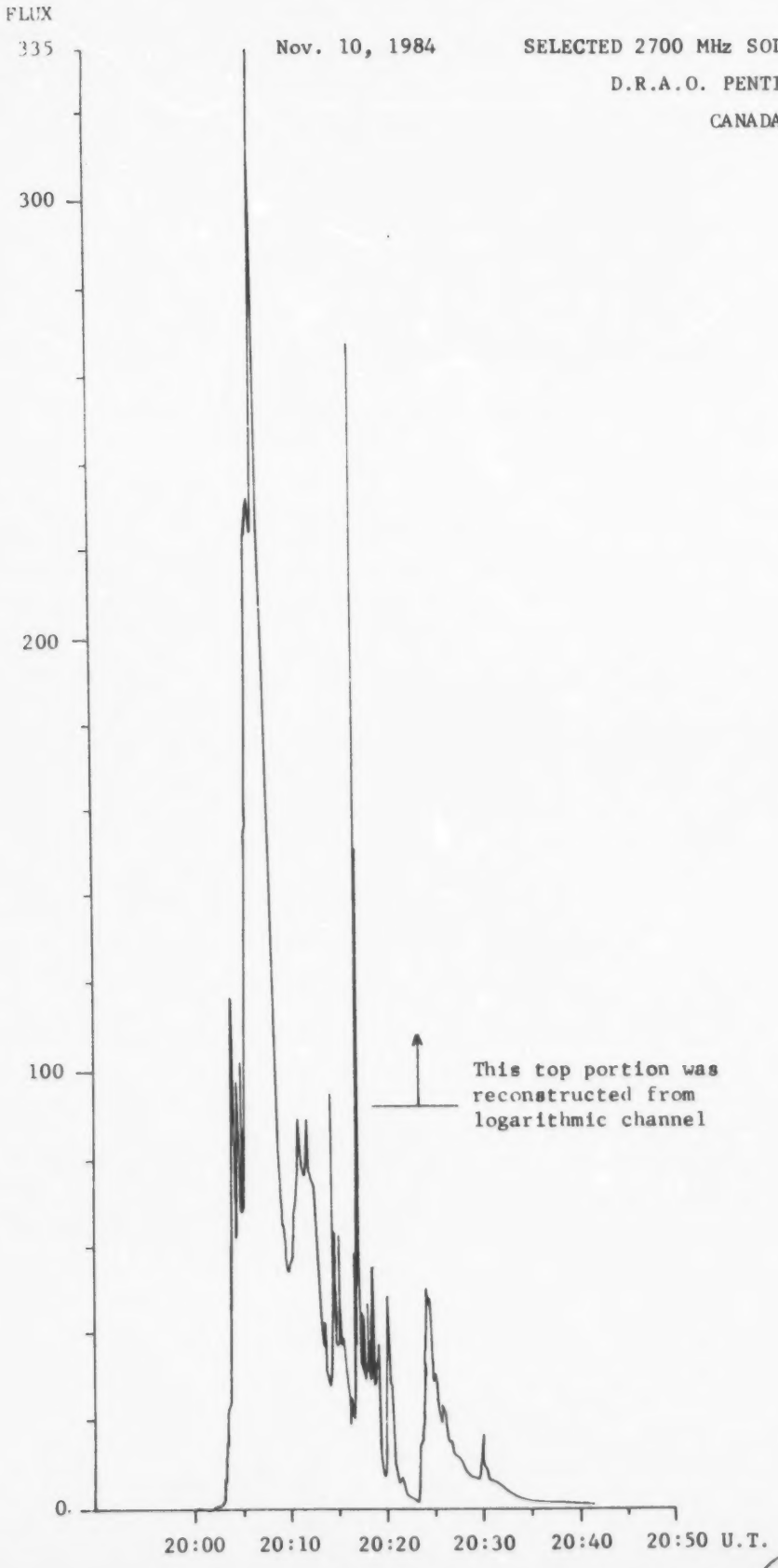
* Corrected for burst.
a) No observation

November 1984

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE Nov.	KFY	CLASS	START U.T. H M	MAXIMUM U.T. H M	DURATION MINUTES	PEAK FLUX	MEAN FLUX
10	46F	C Complex F (-)	13 12.8	13 45.3	43.2	74.0	21.2**
	20	PBI P.B. Increase	13 56	13 56	50	6.2	1.6**
	21	GRF SimpIIIA GRF	19 20	Indet.	140	3.4	1.7
	46F	C Complex F (-)	20 03	20 07.2	35	335.0	46.0
15	20	GRF SimpIII GRF	17 30	18 00	70	1.0	0.5
16	-	- Incomplete	E14 16	Indet.	>9	5.8	---**
	29	PBI P.B. Increase	14 25	14 25	150	3.0	1.5**
19	2	S/F Simple IF	18 31	18 31.5	2	1.4	0.7
26	4	S/F Simple IIF	19 13.8	19 14.8	2.7	42.0	7.8
	29	PBI P.B. Increase	19 16.5	19 16.5	70	2.0	1.0
27	20	GRF SimpIII GRF	14 55	15 40	150	5.0	2.3**
	4	S/F Simple IIF	18 35	18 41.2	10	16.4	8.2
	29	PBI P.B. Increase	18 45	18 45	135	7.2	2.4
28	20	GRF SimpIII GRF	16 05	16 15	35	1.4	0.7**
	20	GRF SimpIII GRF	17 20	17 35	75	1.6	0.8
	20	GRF SimpIII GRF	20 30	20 45	70	3.8	1.7*
30	40	F Fluctuations	18 58	19 01.2	4	27.0	---

* Only observed at DRAO, Penticton.
**Only observed at APO, Lake Traverse.

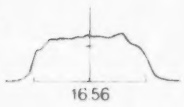

FLUX
335
300
200
100
0.
Nov. 10, 1984
SELECTED 2700 MHz SOLAR NOISE BURST
D.R.A.O. PENTICTON B.C.
CANADA
This top portion was reconstructed from logarithmic channel
20:00
20:10
20:20
20:30
20:40
20:50 U.T.

EAST-WEST SOLAR SCANS

NOVEMBER 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution

01 70.6

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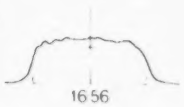
02 71.2

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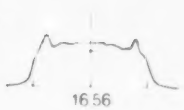

16.56

04 73.4
NO DATA

05 72.9

16.56

06 72.3

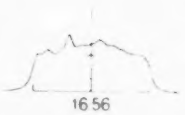
16.56

07 71.4

16.56

08 71.9

16.56

09 74.1

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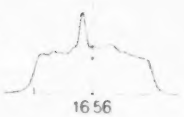
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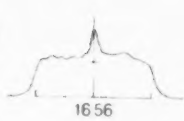
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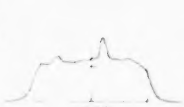
12 74.4

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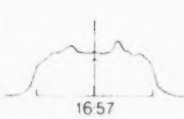
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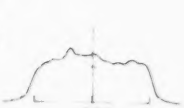
14 73.5

16.57

15 74.5

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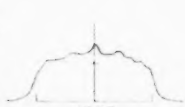
16 72.3

16.57

17 72.7

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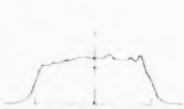
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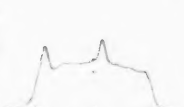
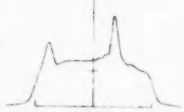
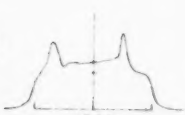
19 74.1

16.58

20 76.6

16.58

21 80.2

16.58

22 80.2

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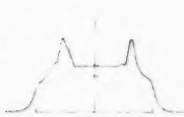
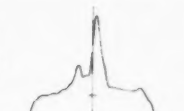
23 81.3

16.59

24 83.3

16.59

25 85.3

16.59

26 84.7

17.00

27 85.9

17.00

28 83.3

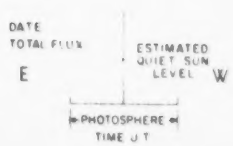
17.00

29 79.2

17.01

30 78.6

17.01



December 1984

HERZBERG INSTITUTE OF ASTROPHYSICS
NATIONAL RESEARCH COUNCIL
OTTAWA, ONTARIO
CANADA

SERIES C & D

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO) AT 17:00 U.T.

Series D is the best estimate of absolute value and is obtained by using the multiplier .90 recommended by Commission V of URSI

1984	Observed	Adj. to 1 AU	
Dec.	Series C	Series C	Series D
1	79.2	77.0	69.3
2	79.0	76.8	69.1
3	80.2	77.9	70.1
4	78.2	75.9	68.3
5	75.6	73.4	66.1
6	75.2	73.0	65.7
7	75.0	72.8	65.5
8	76.4	74.1	66.7
9	76.8	74.5	67.0
10	78.0	75.7	68.1
11	81.4	78.9	71.0
12	80.3	77.8	70.0
13	78.6	76.2	68.6
14	78.2a	75.8a	68.2a
15	77.3	74.9	67.4
16	76.7	74.2	66.8
17	75.0	72.6	65.3
18	72.5	70.2	63.2
19	73.3	71.0	63.9
20	72.2	69.9	62.9
21	72.0	69.7	62.7
22	73.0	70.7	63.6
23	73.7	71.3	64.2
24	74.2	71.8	64.6
25	74.7	72.2	65.0
26	74.8	72.3	65.1
27	74.5	72.0	64.8
28	74.7	72.2	65.0
29	74.6	72.1	64.9
30	73.8	71.4	64.3
31	72.4	70.0	63.0
Mean:	75.9	73.5	66.1

a) Extrapolated

December 1984

SERIES C

DAILY VALUES OF SOLAR FLUX AT 2800 MHZ (OTTAWA-ARO)

AND AT 2700 MHZ (PENTICTON-DRAO)

OBSERVED VALUES

1984	OTTAWA - ARO			PENTICTON - DRAO
Dec.	14:00	17:00	20:00	19:35
1	79.9	79.2	79.5	----
2	79.1	79.0	79.7	----
3	80.0	80.2	80.1	77.7
4	78.8	78.2	78.4	76.0
5	75.4	75.6	75.7	73.2
6	74.9	75.2	75.7	73.0
7	74.3	75.0	75.4	74.0
8	76.8	76.4	76.4	----
9	75.8	76.8	77.8	----
10	77.9	78.0	77.0	75.5
11	81.6	81.4	82.1	80.0
12	82.5	80.3	79.7	80.0
13	80.0	78.6	78.2	77.7
14	78.2	78.2a	78.2a	77.2
15	77.8	77.3	76.7	----
16	76.8	76.7	75.5	----
17	76.0	75.0	74.8	74.7
18	73.7	72.5	72.0	72.8
19	74.0	73.3	71.8	73.6
20	72.7	72.2	71.4	72.5
21	72.0	72.0	71.5	72.9
22	73.3	73.0	72.1	----
23	73.0	73.7	73.5	----
24	74.2	74.2	74.2	73.3
25	73.3	74.7	75.4	----
26	73.7	74.8	75.3	----
27	73.7	74.5	75.2	73.5
28	74.7	74.7	74.9	73.4
29	72.6	74.6	76.3	----
30	73.5	73.8	74.7	----
31	72.2	72.4	73.5	72.3
Mean:	75.9	75.9	75.9	74.9

a) Extrapolated

OUTSTANDING EVENTS - SOLAR RADIATION AT 2700 AND 2800 MHZ

DATE	KFY		CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
Dec.				H M	H M	MINUTES		
11	27A	RF	Rise & Fall A	15 00	Indet.	110	1.2	1.1**
	24	R	Rise	15 00	15 04	4	1.2	---**
	1	S	Simple I	15 02	15 03	2	0.8	0.4**
	24P	R	Post Rise	15 04	-- --	91	1.2	---**
	26	FAI	Fall	16 35	16 50	15	-1.2	-0.6**
	20	GRF	SimpIII GRF	18 05	18 30	40	1.0	0.5
19	1	S	Simple I	18 31.2	18 31.3	1.5	0.8	0.3
20	8	S	Spike	18 32	18 32	0.5	1.4	0.4

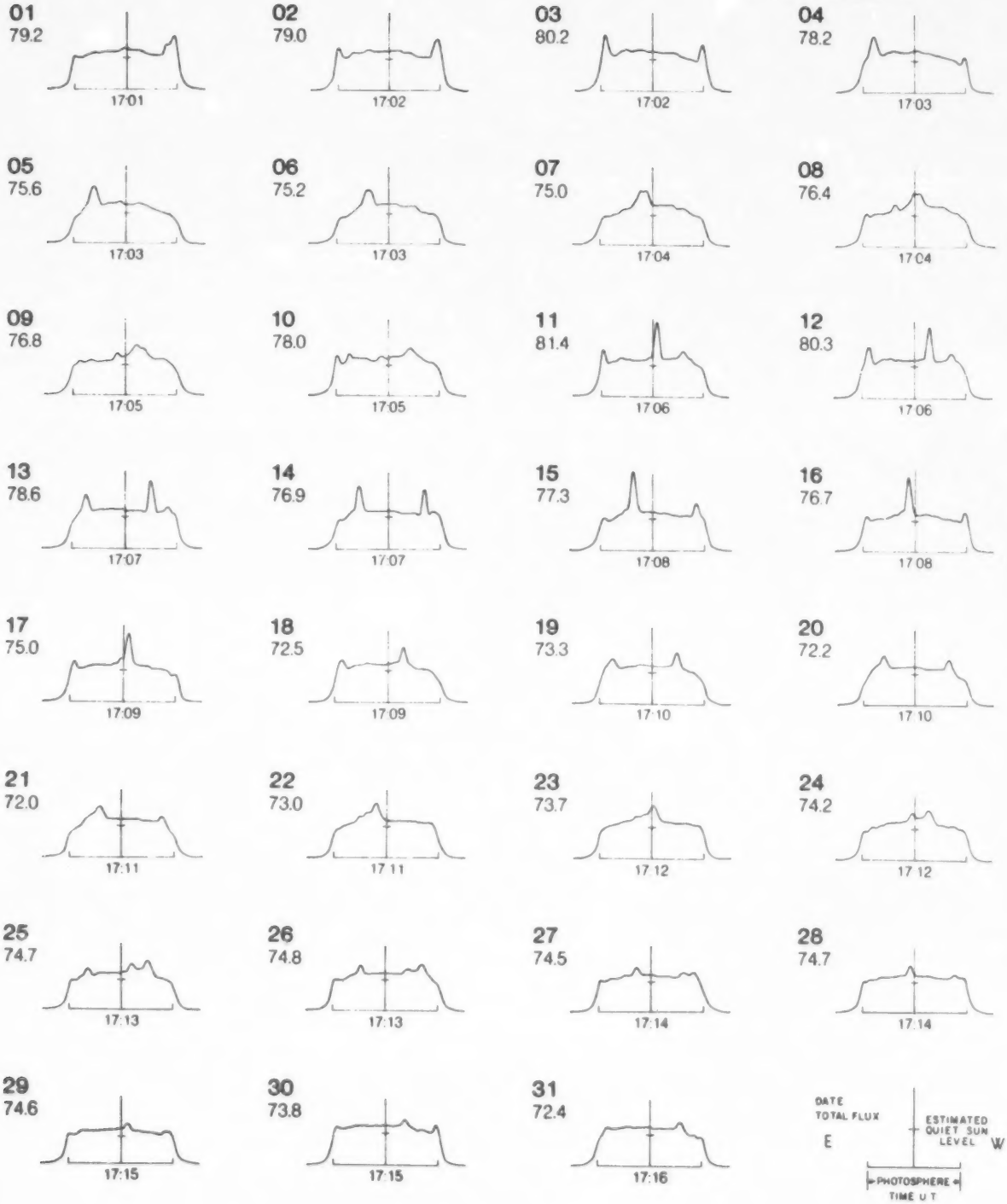
**Only observed at ARO, Lake Traverse.

EAST-WEST SOLAR SCANS

DECEMBER 1984

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7 cm
Fan Beam with 1·5 minutes of arc
E-W Resolution



OTTAWA
2800 MHZ 17 U.T. OBSERVED SERIES C OTTAWA
2800 MHZ

1984 1984

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	87.2	159.2	146.2	135.8	151.3	112.8	98.4	81.6	92.4	71.9	70.6	79.2	1
2	90.4	146.2#	140.6	134.7#	137.1#	108.2	100.2	83.8	91.6	74.7	71.2	79.0	2
3	92.6	135.3	124.6	128.8#	121.0	106.5	101.4	85.8	92.9	75.1	73.2	80.2	3
4	94.1	129.6	116.3#	129.4	111.6#	103.8	102.2	83.3	90.4	75.2	73.4	78.2	4
5	91.2	117.5	111.1	118.6	112.9	101.6	101.0#	83.3	88.4	74.0	72.9	75.6	5
6	88.5	115.0	111.2	111.9#	106.2	96.0	97.0	87.4	84.5	73.3	72.3	75.2	6
7	89.5	116.8	106.6	107.6	116.1	94.5	96.8	89.9	83.9	73.6	71.4	75.0	7
8	95.5	130.7	105.3	100.4A	119.6	91.8	97.8	91.4	82.2	74.7	71.9	76.4	8
9	97.6	143.8	103.9	94.6	135.7	90.8	101.1	91.8	79.5	73.7	74.1	76.8	9
10	98.5	140.3#	100.1	93.5	147.9	89.5	98.0	92.9	78.0	74.3	77.3	78.0	10
11	100.1	144.9#	99.9	96.8	145.0	90.4	93.6	88.4	76.8	74.6	74.6	81.4	11
12	104.5	139.4#	103.5#	106.7	145.2#	90.2	91.7	85.7	75.5	74.2	74.4	80.3	12
13	105.6	131.7	116.1	113.0	148.3	95.5	89.6	84.3	74.0	75.1	73.1	78.6	13
14	102.6	123.4#	122.4	118.1	143.7	106.8	89.3#	81.9	73.5	73.6	73.5	78.2A	14
15	101.1	116.3	135.9	118.9	136.6	112.9#	89.3	80.5	72.5	76.9	74.5	77.3	15
16	99.8#	117.3#	125.3	116.4	134.2	106.9	87.2	81.1	72.6	77.1	72.3	76.7	16
17	98.3	119.4	130.4	121.9#	127.2	106.1#	84.5	79.0	73.9	76.7	72.7	75.0	17
18	98.1	125.1#	126.9#	118.8	128.8	105.4	82.8	77.2	73.1	77.1	73.4	72.5	18
19	96.5	131.4#	127.5	111.5#	134.4	104.4	82.0	74.4	73.9	74.8	74.1	73.3	19
20	105.6	137.6	127.3	122.9#	134.8	103.2	82.1	73.8	73.5	74.2	76.6	72.2	20
21	106.7	147.0	123.3	126.4	141.8#	100.1#	84.0	75.5	74.5	73.9	80.2	72.0	21
22	114.0	161.6	123.6	129.4	126.9	101.3	83.6	74.0	75.4	75.3	80.2	73.0	22
23	116.9	169.7	115.8	135.1#	126.7	101.9	84.6	74.4	75.6	73.4	81.3	73.7	23
24	130.4#	176.6#	113.7	141.2	123.7	100.3	84.1	79.8	75.7	71.6	83.3	74.2	24
25	151.5	172.9#	112.2	150.6	122.5#	101.3	83.2	81.2	74.2	71.1	85.3	74.7	25
26	170.1#	167.6	120.7	171.8	117.8	96.8	80.8	85.9	73.9	70.2	84.7	74.8	26
27	177.6	157.3	129.6#	181.2#	117.1	98.2	80.5	88.5	73.2	69.5	84.8#	74.5	27
28	174.1	151.7	136.3	180.1#	115.4	96.2	80.0	86.9	72.8	70.2	83.3	74.7	28
29	180.0	150.8	138.5#	175.6#	117.7	97.0	79.8	88.5	71.5	69.2	79.2	74.6	29
30	166.5		144.1	168.3	116.4B	97.8	79.7	90.1	72.2	69.8	78.6	73.8	30
31	174.4		144.0		112.7		80.6	91.4#		70.9		72.4	31
MEAN	116.1	140.6	122.0	128.7	128.3	100.3	89.3	83.7	78.1	73.5	76.3	75.9	

ANNUAL MEAN 101.1

OTTAWA
2800 MHZ 17 U.T. ADJUSTED TO 1 A.U. SERIES C OTTAWA
2800 MHZ

1984 1984

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	84.3	154.6	143.6	135.7	153.7	116.1	101.7	84.0	94.1	72.0	69.5	77.0	1
2	87.4	142.0#	138.2	134.6#	139.3#	111.3	103.6	86.3	93.2	74.8	70.1	76.8	2
3	89.5	131.4	122.5	128.8#	123.1	109.6	104.8	88.4	94.5	75.2	72.0	77.9	3
4	91.0	126.0	114.4#	129.5	113.5#	106.8	105.7	85.7	91.9	75.2	72.2	75.9	4
5	88.2	114.2	109.3	118.7	114.9	104.6	104.4#	85.7	89.8	74.0	71.7	73.4	5
6	85.6	111.8	109.5	112.1#	108.1	98.9	100.3	89.9	85.9	73.2	71.0	73.0	6
7	86.5	113.6	105.0	107.8	118.3	97.3	100.1	92.4	85.2	73.5	70.1	72.8	7
8	92.3	127.2	103.8	100.7A	121.9	94.6	101.1	94.0	83.4	74.6	70.5	74.1	8
9	94.4	139.9	102.4	94.9	138.3	93.6	104.5	94.4	80.6	73.5	72.7	74.5	9
10	95.2	136.7#	98.8	93.9	150.9	92.3	101.3	95.4	79.1	74.1	75.8	75.7	10
11	96.8	141.1#	98.6	97.3	147.9	93.2	96.8	90.8	77.8	74.3	73.1	78.9	11
12	101.1	135.8#	102.3#	107.2	148.2#	93.0	94.7	88.0	76.5	73.9	72.8	77.8	12
13	102.1	128.4	114.7	113.7	151.4	98.6	92.6	86.5	75.0	74.7	71.6	76.2	13
14	99.2	120.3#	121.1	118.8	146.9	110.2	92.2#	84.0	74.5	73.2	72.0	75.8A	14
15	97.8	113.4	134.4	119.7	139.6	116.5#	92.2	82.6	73.3	76.4	72.9	74.9	15
16	96.6#	114.5#	124.0	117.2	137.3	110.3	90.1	83.1	73.4	76.6	70.7	74.2	16
17	95.2	116.5	129.1	122.9#	130.1	109.5#	87.3	81.0	74.6	76.2	71.0	72.6	17
18	95.0	122.2#	125.8#	119.9	131.9	108.9	85.5	79.1	73.8	76.5	71.7	70.2	18
19	93.4	128.4#	126.5	112.5#	137.6	107.8	84.7	76.2	74.6	74.2	72.3	71.0	19
20	102.2	134.6	126.3	124.1#	138.0	106.6	84.8	75.6	74.1	73.5	74.8	69.9	20
21	103.3	143.8	122.4	127.7	145.3#	103.4#	86.7	77.2	75.1	73.2	78.3	69.7	21
22	110.5	158.0	122.7	130.8	130.1	104.6	86.3	75.7	75.9	74.5	78.2	70.7	22
23	113.3	166.1	115.1	136.6#	130.0	105.3	87.3	76.0	76.1	72.7	79.3	71.3	23
24	126.4#	172.9#	113.0	142.9	126.9	103.6	86.8	81.6	76.2	70.8	81.1	71.8	24
25	146.8	169.4#	111.6	152.4	125.7#	104.6	85.9	83.0	74.6	70.2	83.1	72.2	25
26	164.8#	164.2	120.2	174.0	121.0	100.1	83.4	87.7	74.3	69.4	82.5	72.3	26
27	172.3	154.3	129.1#	183.7#	120.3	101.5	83.0	90.4	73.5	68.6	82.5#	72.0	27
28	168.9	148.8	135.9	182.6#	118.5	99.5	82.5	88.6	73.1	69.3	81.1	72.2	28
29	174.6	148.1	138.1#	178.2#	121.0	100.3	82.3	90.3	71.7	68.2	77.1	72.1	29
30	161.5		143.8	170.8	119.7B	101.1	82.2	91.8	72.4	68.8	76.4	71.4	30
31	169.3		143.7		115.9		83.0	93.1#		69.8		70.0	31
MEAN	112.4	137.2	120.8	129.7	131.1	103.5	92.2	85.8	78.9	73.1	74.6	73.5	

ANNUAL MEAN [illegible].1

OTTAWA
2800 MHZ 17 U.T. ADJUSTED TO 1 A.U. SERIES D OTTAWA 2800 MHZ

1984 1984

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	75.9	139.1	129.2	122.1	138.3	104.5	91.5	75.6	84.7	64.8	62.5	69.3	1
2	78.7	127.8#	124.4	121.1#	125.4#	100.2	93.2	77.7	83.9	67.3	63.1	69.1	2
3	80.5	118.3	110.3	115.9#	110.8	98.6	94.3	79.6	85.0	67.7	64.8	70.1	3
4	81.9	113.4	103.0#	116.5	102.1#	96.1	95.1	77.1	82.7	67.7	65.0	68.3	4
5	79.4	102.8	98.4	106.8	103.4	94.1	94.0#	77.1	80.8	66.6	64.5	66.1	5
6	77.0	100.6	98.5	100.9#	97.3	89.0	90.3	80.9	77.3	65.9	63.9	65.7	6
7	77.8	102.2	94.5	97.0	106.5	87.6	90.1	83.2	76.7	66.1	63.1	65.5	7
8	83.1	114.5	93.4	90.6A	109.7	85.1	91.0	84.6	75.1	67.1	63.4	66.7	8
9	85.0	125.9	92.2	85.4	124.5	84.2	94.0	85.0	72.5	66.1	65.4	67.0	9
10	85.7	123.0#	88.9	84.5	135.8	83.1	91.2	85.9	71.2	66.7	68.2	68.1	10
11	87.1	127.0#	88.7	87.6	133.1	83.9	87.1	81.7	70.0	66.9	65.8	71.0	11
12	91.0	122.2#	92.1#	96.5	133.4#	83.7	85.2	79.2	68.8	66.5	65.5	70.0	12
13	91.9	115.6	103.2	102.3	136.3	88.7	83.3	77.8	67.5	67.2	64.4	68.6	13
14	89.3	108.3#	109.0	106.9	132.2	99.2	83.0#	75.6	67.0	65.9	64.8	68.2A	14
15	88.0	102.1	121.0	107.7	125.6	104.8#	83.0	74.3	66.0	68.8	65.6	67.4	15
16	86.9#	103.0#	111.6	105.5	123.6	99.3	81.1	74.8	66.1	68.9	63.6	66.8	16
17	85.7	104.8	116.2	110.6#	117.1	98.5#	78.6	72.9	67.1	68.6	63.9	65.3	17
18	85.5	110.0#	113.2#	107.9	118.7	98.0	76.9	71.2	66.4	68.8	64.5	63.2	18
19	84.1	115.6#	113.8	101.3#	123.8	97.0	76.2	68.6	67.1	66.8	65.1	63.9	19
20	92.0	121.1	113.7	111.7#	124.2	95.9	76.3	68.0	66.7	66.1	67.3	62.9	20
21	93.0	129.4	110.2	114.9	130.8#	93.1#	78.0	69.5	67.6	65.9	70.5	62.7	21
22	99.4	142.2	110.4	117.7	117.1	94.1	77.7	68.1	68.3	67.0	70.4	63.6	22
23	102.0	149.5	103.6	122.9#	117.0	94.8	78.6	68.4	68.5	65.4	71.4	64.2	23
24	113.8#	155.6#	101.7	128.6	114.2	93.2	78.1	73.4	68.6	63.7	73.0	64.6	24
25	132.1	152.5#	100.4	137.2	113.1#	94.1	77.3	74.7	67.1	63.2	74.8	65.0	25
26	148.3#	147.8	108.2	156.6	108.9	90.1	75.1	78.9	66.9	62.5	74.3	65.1	26
27	155.1	138.9	116.2#	165.3#	108.3	91.3	74.7	81.4	66.1	61.7	74.3#	64.8	27
28	152.0	133.9	122.3	164.3#	106.6	89.5	74.3	79.7	65.8	62.4	73.0	65.0	28
29	157.1	133.3	124.3#	160.4#	108.9	90.3	74.1	81.3	64.5	61.4	69.4	64.9	29
30	145.3		129.4	153.7	107.7B	91.0	74.0	82.6	65.2	61.9	68.8	64.3	30
31	152.4		129.3		104.3		74.7	83.8#		62.8		63.0	31
MEAN	101.2	123.5	108.8	116.7	118.0	93.1	83.0	77.2	71.0	65.8	67.1	66.1	

ANNUAL MEAN 91.0

PENTICTON 2700 MHZ 20 U.T. OBSERVED SERIES C PENTICTON 2700 MHZ

1984 1984

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	----	-----	146.8	-----	148.6	110.1	-----	79.8	----	71.4	68.7	----	1
2	----	141.2	135.1	133.9	134.4#	-----	-----	82.8	----	73.0	69.8	----	2
3	90.7	134.9	-----	125.8	121.9	-----	100.3	83.2	----	74.3	----	77.7	3
4	93.2	-----	-----	126.7	108.7#	102.8	100.4	----	88.8	73.5	----	76.0	4
5	90.4	-----	110.3	119.6	-----	100.7	99.9	----	85.9	72.9	70.3	73.2	5
6	88.8	115.5#	109.3	110.2	-----	94.1	96.6#	----	82.8	----	70.5	73.0	6
7	----	116.1#	106.5	-----	112.5	93.5#	----	87.9	81.7	----	69.6	74.0	7
8	----	130.1	104.4	-----	119.8	89.1	----	89.9	----	----	70.4	----	8
9	97.5	139.3	103.0	92.6	135.2	----	100.2	91.4	----	72.4	72.3	----	9
10	97.6	139.6	-----	91.5	138.5	----	96.9	90.6	76.6	72.5	----	75.5	10
11	98.6#	-----	-----	95.5#	139.5#	89.0	92.7	----	75.2	72.8	----	80.0	11
12	105.0#	-----	102.8#	103.9	-----	89.0#	91.1	----	73.7	73.5	----	80.0	12
13	105.1	126.7	115.7	110.0	-----	95.3	88.2	83.9	73.2	----	71.8	77.7	13
14	-----	120.1#	-----	-----	139.0	108.1#	----	81.3	71.0	----	71.5	77.2	14
15	-----	115.0	130.4#	-----	133.9	110.6	----	78.9	----	75.0	72.2	----	15
16	98.6#	115.6	132.9	115.2	131.0	-----	83.9	78.6	----A	74.8	70.5	----	16
17	96.3#	115.7	-----	118.6	126.9	-----	82.9	76.7	71.9	75.0	----A	74.7	17
18	96.0	-----	-----	118.8	125.8	105.9	80.4	----	71.4	75.3	----	72.8	18
19	96.4	-----	127.6#	109.9	-----	101.8	79.6	----	72.2	73.4	73.0	73.6	19
20	106.5	136.1#	124.3#	-----	-----	102.2#	79.7	72.8	71.6	----	75.6	72.5	20
21	-----	144.7#	126.5	-----	-----	98.3#	----	72.8	72.7	----	77.6	72.9	21
22	-----	156.5	123.4	-----	126.2	98.7	----	72.5	----	72.2	78.1	----	22
23	117.1	166.8#	115.4#	-----	124.8	----	82.9	73.0	----	71.7	78.9	----	23
24	132.2	177.1#	-----	141.8	118.5	----	83.4	78.0	73.4	70.7	----	73.3	24
25	149.8#	-----	-----	156.6	121.9	99.4	81.9	----	73.2	69.2	----	----	25
26	166.8	-----	122.0	169.2	-----	95.5	78.9	----	73.1	68.4	80.9#	----	26
27	174.8	155.3	129.3	177.4#	-----	97.4	78.5	86.9#	72.4	----	83.6#	73.5	27
28	-----	150.5	133.4#	-----	116.2	94.2	----	84.6	71.7	----	79.7	73.4	28
29	-----	150.3#	137.9	-----	117.5#	96.0	----	86.8	----	67.8	77.1	----	29
30	160.9		141.0#	164.4	116.1	----	76.8	88.7	----	68.5	77.4	----	30
31	158.4		-----		111.7		78.8	89.1		69.3		72.3	31
MEAN	115.7	137.4	122.8	125.3	125.8	98.7	87.3	82.3	75.4	72.2	74.3	74.9	

ANNUAL MEAN 99.3

PENTICTON
2700 MHZ 20 U.T. ADJUSTED TO 1 A.U. SERIES C PENTICTON 2700 MHZ

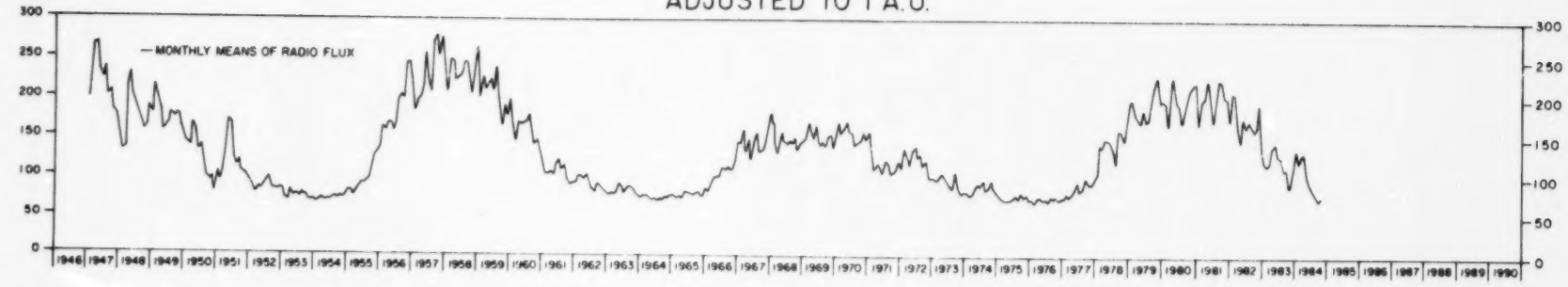
1984 1984

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	----	----	148.2	----	151.0	113.3	----	82.2	----	71.5	67.7	----	1
2	----	137.1	132.8	133.8	136.6#	----	----	85.3	----	73.1	68.7	----	2
3	87.7	131.0	----	125.8	124.0	----	103.7	85.7	----	74.4	----	75.4	3
4	90.1	----	----	126.8	110.5#	105.8	103.8	----	90.3	73.5	----	73.8	4
5	87.4	----	108.5	119.7	----	103.7	103.3	----	87.3	72.9	69.1	71.1	5
6	85.9	112.3#	107.7	110.4	----	96.9	99.9#	----	84.1	----	69.2	70.9	6
7	----	113.0#	104.9	----	114.6	96.3#	----	90.4	82.9	----	68.3	71.8	7
8	----	126.6	102.9	----	122.1	91.8	----	92.4	----	----	69.1	----	8
9	94.3	135.5	101.6	92.9	137.8	----	103.6	94.0	----	72.2	70.9	----	9
10	94.4	136.0	----	91.9	141.3	----	100.2	93.0	77.7	72.3	----	73.2	10
11	95.3#	----	----	96.0#	142.3#	91.8	95.9	----	76.2	72.5	----	77.5	11
12	101.5#	----	101.6#	104.4	----	91.8#	94.1	----	74.7	73.2	----	77.5	12
13	101.6	123.5	114.3	110.7	----	98.3	91.1	86.1	74.2	----	70.3	75.3	13
14	----	117.1#	----	----	142.1	111.6#	----	83.4	71.9	----	70.0	74.8	14
15	----	112.1	129.0#	----	136.8	114.1	----	81.0	----	74.5	70.6	----	15
16	95.4#	112.8	131.6	116.0	134.0	----	86.7	80.6	----A	74.3	68.9	----	16
17	93.2#	112.9	----	119.5	129.8	----	85.6	78.6	72.6	74.5	----A	72.3	17
18	92.9	----	----	119.9	128.8	109.4	83.1	----	72.0	74.7	----	70.5	18
19	93.3	----	126.6#	110.9	----	105.2	82.2	----	72.8	72.8	71.2	71.2	19
20	103.1	133.1#	123.3#	----	----	105.6#	82.3	74.5	72.2	----	73.8	70.2	20
21	----	141.5#	125.6	----	----	101.5#	----	74.5	73.3	----	75.7	70.6	21
22	----	153.1	122.5	----	129.4	102.0	----	74.2	----	71.5	76.1	----	22
23	113.5	163.3#	114.7#	----	128.0	----	85.6	74.6	----	71.0	76.9	----	23
24	128.1	173.4#	----	143.5	121.6	----	86.1	79.7	73.8	69.9	----	70.9	24
25	145.2#	----	----	158.5	125.1	102.7	84.5	----	73.6	68.4	----	----	25
26	161.6	----	121.5	171.4	----	98.7	81.4	----	73.5	67.6	78.8#	----	26
27	169.6	152.3	128.8	179.9#	----	100.7	80.9	88.7#	72.7	----	81.3#	71.1	27
28	----	147.6	133.0#	----	119.3	97.4	----	86.3	72.0	----	77.5	71.0	28
29	----	147.6#	137.5	----	120.8#	99.3	----	88.5	----	66.9	75.0	----	29
30	156.1		140.7#	166.9	119.4	----	79.2	90.4	----	67.5	75.2	----	30
31	163.5		----		114.8		81.2	90.8		68.3		69.9	31
MEAN	112.1	134.1	121.6	126.3	128.6	101.8	90.2	84.3	76.2	71.7	72.6	72.6	

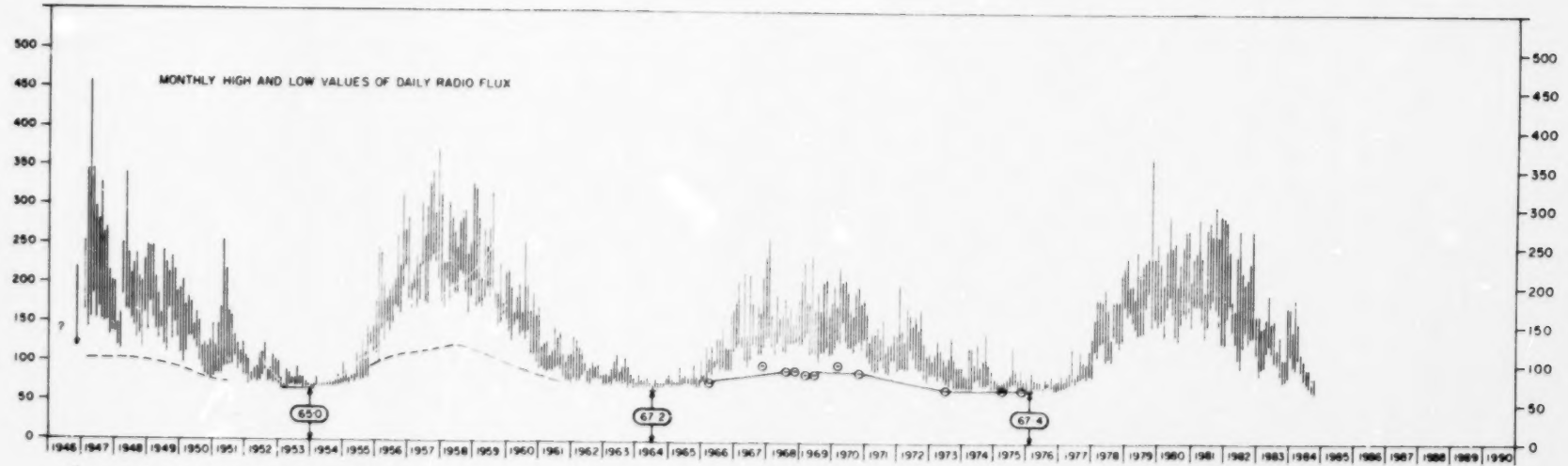
ANNUAL MEAN 99.3

SOLAR RADIO FLUX, 10·7 CM
ADJUSTED TO 1 A.U.

C SERIES



CYCLE 18 19 20 21



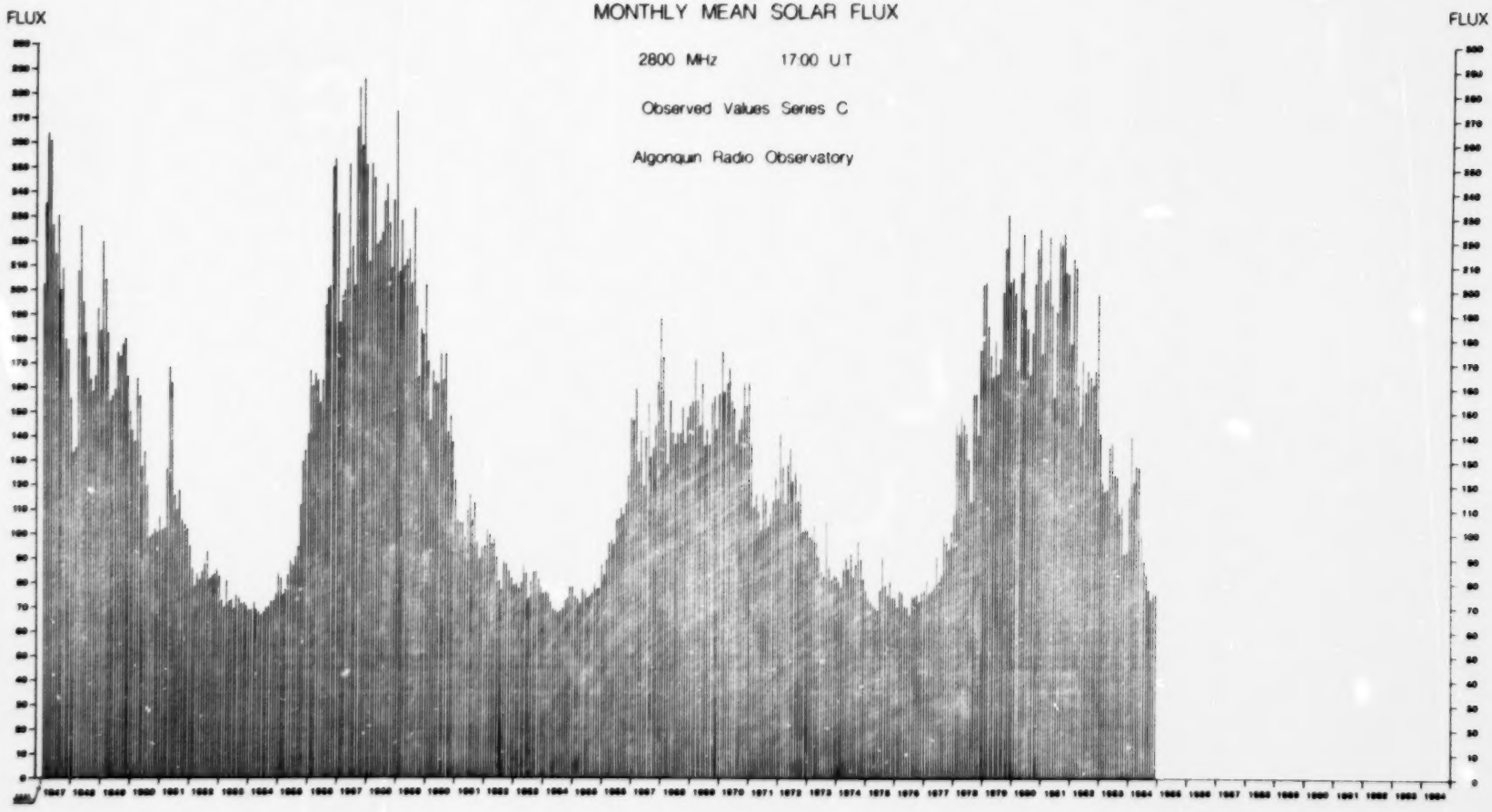
Vertical bars indicate high and low daily values within each month and define the slowly varying component of flux

Dashed curve approximately separates the flux associated with centers of activity from a quiet sun derived as the flux intercept for zero sunspot number in annual plots of daily flux versus sunspot number

Quiet solar flux derived from some radio cool regions on high resolution solar strip scans. Such regions are associated with x-ray corona: holes

First and last appearance of this basic emission given by horizontal line. Radio minimum is determined by selecting a month with minimum values of the slowly varying component as well as the basic flux

Magnitude of the basic quiet sun obtained as the lowest daily flux value observed during minimum sunspot activity and indicated in cartouche at time indicated


FLUX
MONTHLY MEAN SOLAR FLUX
2800 MHz 17:00 UT
Observed Values Series C
Algonquin Radio Observatory
FLUX